THE GENESEE FARMER

Vol. XIV. ROCHESTER, N. Y., MAY, 1853. No. V.

## THE TRANSFORMATION OF VEGETABLES INTO MILK AND FLESH.

Agricultural physiology in its application to the production of milk and meat, has received very little attention in this country; nor has it been possible during the last thirty years to introduce the study of this branch of rural economy into any educational institution in the United States. Hence very few facts exist to form the basis of any argument which we may offer, drawn from experience on this side of the Atlantic; and we are constrained to go to Europe for our data and collateral evidence.

When a cow is in full flow of milk, what is the relation that subsists between the amount of food consumed and the matter voided as dung, estimating both free from water?

Under the patronage of government, Dr. Thompson, of Glasgow, experimented on two cows, both near six years of age; one a speckled Ayrshire, and the other a fair brown native of Scotland. His first experiments commenced June 10th, and continued fourteen days. The Ayrshire weighed 994 lbs.—the brown cow 967½; and to each was fed 1426 lbs. 12 oz. of green rye grass, which was consumed, being a small fraction less than 102 lbs. a day by each. Seventy-five per cent. of this grass was water; so that 356½ lbs. of dry matter entered the stomach of each cow in 14 days. As voided, the dung of the brown cow weighed 1049 lbs. 2 oz. 2 drs.; and that of the white cow (Ayrshire) 1000 lbs. 7 oz. 9 drs. Thoroughly dried, that of the brown cow weighed 147 lbs.; and that of the white cow 140 lbs. These facts show that a half pound of solids taken into the stomach of the Ayrshire cow passed through the walls of the intestines into the blood vessels every 24 hours more than took place in the system of the brown cow. In round numbers, each cow eat 25 lbs. of dry forage in 24 hours; from which one extracted, by superior digestive and absorptive power, 12½ per cent. more aliment which passed into the circulation of her blood, than the other. This gain in nutritive matter in the Ayrshire appeared not in an increased flow of milk, as one might not unreasonably expect, but in flesh; for she added 40 lbs. to her weight in 14 days, it being nearly 4 lbs. a day, and 1 lb. live weight gain to 6¼ lbs. dry food consumed. In addition to this gain in flesh, the white cow yielded 304 lbs. 13 oz. 2 drs. of milk; from which 8 lbs. 2 oz. of butter were separated in 14 days. The brown cow gave 342 lbs. 14 oz. 1 dr. of milk, and gained 18¼ lbs. in weight. From her milk was extracted 11 lbs. 4 oz. 4 drs. of butter. It will be seen that while the brown cow yielded 3 lbs. 2 oz. more butter than the white cow, the latter gained 31½ lbs. more flesh than the former.

It is idle to attempt to separate the flesh-forming from the milk-forming functions of dairy stock, as a practical and economical question. That stock is most valuable whose digestive and assimilative powers give the largest return for the food consumed, whether

in milk or beef. BOUSSINGAULT'S cow, being larger than Dr. THOMPSON'S, consumed 28 lbs. 1 oz. 1 dr. (dry weight) of aftermath hay and potatoes, every 24 hours, and voided 10 lbs. 8 oz. 12 drs. (dry weight) as excrements. These experiments prove that considerably more than half of the matter taken into the system as food passes into the general circulation, and is not voided by the bowels. Whether a large or a small cow, other things being equal, will separate the greater amount of aliment from any given quantity of food, has often been debated. BOUSSINGAULT believes that large cows, properly fed, yield a better return than small ones; the subject, however, needs further investigation. On scant pastures, all concede that small cows pay best.

It is interesting to inquire how the matter that escapes as dung compares in its chemical elements with that which was consumed as food. Each of the cows kept by Dr. THOMPSON consumed 161¾ lbs. of carbon in grass in 14 days. In the dung of the brown cow there was found 67 lbs.; and in that of the white cow 64 lbs. These figures show an absorption by the lacteals which surround the intestines, and convey aliment to the heart, of 94¾ lbs. of carbon in the white cow, and 91¾ in the brown cow.

Of nitrogen each cow consumed 6½ lbs.; and while the dung of the Ayrshire contained 2½, that of the brown cow contained 2 7-10 lbs.

Of oxygen, the food consumed contained 148 lbs.; the dung 54½ in the brown cow, and 52 in the white cow; showing that in the former 93½ lbs. entered into the blood vessels; and in the latter 96 lbs.

Of incombustible mineral, (ash) 18¾ lbs. were consumed by each cow; of which the dung of the brown cow exhibited 14⅓ lbs., and that of the white cow 13¾ lbs.

Of water, the dung of the brown cow contained 902½ lbs., and that of the white cow 860 lbs. Cows, especially when giving milk, are large consumers of water. BOUSSINGAULT'S cow while subsisting on potatoes and hay, drank 132 lbs. in 24 hours. In the potatoes there were 23 lbs. 12 oz. of water; and 2 lbs. 9 oz. in the hay. Of the 158 lbs. 5 oz. of water daily consumed, 53 lbs. 10 oz. escaped in dung; 15 lbs. 14 oz. in urine; 16 lbs. 3 oz. in milk; and 72 lbs. 10 oz. by the lungs and cutaneous transpiration. One can obtain some idea of the freedom with which water passes through the aperatures in the walls of all cells, as well as along the tubes of all vessels, whether lacteals, lymphatics, veins, or arteries, when he is told that lean meat is three-fourths water.

To aid nature in dissolving the solids taken into the digestive apparatus, is a point of great importance to the stock-grower and dairyman; but instead of being at the expense of grinding corn and other grain for cows, fatting cattle and swine, we have found reason to believe that cooking without grinding pays better, especially where grain is cheap. Probably 100 lbs. of corn boiled soft will yield three or four per cent. less nutriment to the blood than the same corn made into meal and then cooked and fed as mush; but it will cost the farmer, generally, a little more than four per cent. of his corn to get it ground ready for use. It is good economy to steep in boiling water, hay, cornstalks, and other dry forage, unless both meat and food are very cheap. After one has provided a full supply of the raw material to be transformed into milk and flesh, including fat, and taken due pains for its solution in the gastric juices and other liquids in the alimentary canal, he should carefully study every organ and its function in the animal system, that he may trace the course of the nutrient atoms to their final destination, as they pass from the intestines into the lacteal tubes and thence into every tissue. In healthy animals, the kidneys operate very successfully to purify the blood, and free it of surplus salts and urea. Perspiration and respiration are functions of equal importance to the health of animals. BOUSSINGAULT found 8 oz. 7 drs. of carbon in the urine of a cow voided in 24 hours; and 1 lb. 6 oz. of salts. Eight pounds three ounces of carbon entered the blood vessels in 24 hours from the organs of digestion in BOUSSINGAULT'S experiments; of which 1 lb. 3 oz. 3 drs. appeared in milk, and, as

above stated, 8 oz. 7 drs. in urine. These figures indicate that 6 lbs. 2 oz. 6 drs. of carbon escape in the form of carbonic acid from the lungs, less by the small amount that passes off through the skin. As the quantity of carbon taken into the system was 12 lbs. 10 oz. 13 drs., it will be seen that one-half of all that enters the stomach is literally burnt up to keep the body warm; and of that taken up by the lacteals, three-fourths are so consumed. To supply eight or ten pounds of soluble organized carbon a day in the food of a cow, ox or horse, demands the best lights of organic chemistry. If different animals give very unlike results, when fed in every respect alike, different alimentary substances are still more varient in their nutritive powers and value, and equally deserve close investigation. Anatomy, physiology and chemistry are dry subjects to the uninitiated, but become interesting as one advances in them, and sees their direct bearing on skillful husbandry.

## SUPERPHOSPHATE OF LIME.

We had supposed our readers would ere this have been tired of the very name of superphosphate of lime, but from the many inquiries we have recently received respecting its manufacture, its real value, the crops which it most benefits, and the best manner of application, we perceive that it is engaging the attention of some of our most intelligent farmers, and that much ignorance and uncertainty prevails respecting it.

Phosphate of lime is composed of phosphoric acid and lime. Phosphoric acid enters into the composition of every plant that is grown for food; it composes one-half of the ash of wheat, maize, timothy seed, &c., &c. In conjunction with lime, it forms greater part of the bones of men and animals. It will therefore be seen that phosphoric acid is an element of great importance in an agricultural point of view; and when it is remembered that soils, though of the most fertile character, contain but a relatively small proportion of phosphoric acid, its manurial value will be clearly understood.

Phosphate of lime, as it exists in bones or in any of the mineral compounds, is *insoluble in water*. As plants take up all their food in solution, it is necessary to convert, by decomposition or otherwise, this insoluble phosphate into a soluble one. Bi-phosphate of lime is soluble in water. That is to say, a compound containing two atoms of phosphoric acid united with one of lime, is soluble in water; while phosphate of lime, or a compound having but one atom of phosphoric acid united with an atom of lime, is insoluble. The question then is, how shall we convert the phosphate into a bi or superphosphate of lime? In the laboratory the change can be effected by adding phosphoric acid to phosphate of lime; but this is too expensive a process to be applied to agriculture. Another method, and the one adopted by the manufacturers of superphosphate of lime, is to take away a portion of the lime of the phosphate of lime, setting free the phosphoric acid combined with it. This free phosphoric acid unites with the remaining phosphate of lime, and forms the required bi-posphate of lime. This is accomplished by adding sulphuric acid to burnt bones or any phosphate of lime substance. Sulphuric, being a stronger acid than phosphoric, takes away the lime and sets the phosphoric acid free, which, as we have said, unites with the remaining phosphate of lime, forming the soluble phosphate required.

Phosphate of lime is worth about seven mills per pound, as it can be purchased at that price in most of our principal cities in the form of animal charcoal. Bi-phosphate of lime is worth about eight cents per pound. We do not say that farmers can purchase it for that price, but they can manufacture it themselves for a little less than that, and eight cents per pound is the estimated value in England, where it is extensively used.

We have so repeatedly within the last three years given our views respecting the efficacy of this manure, that our correspondents must excuse us for stating them in as few words as possible, and without giving the reasons on which our opinion is founded. We think, then, that under no circumstances is it good economy to purchase superphosphate of lime as a manure for wheat, barley, oats, potatoes, timothy, or old meadow grasses. If your soil is deficient of phosphoric acid, supply the deficiency with phosphate of lime at seven mills per pound, and not with bi-phosphate at eight cents; for though phosphate of lime is insoluble, yet by decomposition, &c., it is gradually rendered available for the plants. The only crop for which we can confidently and conscienciously recommend a farmer to purchase superphosphate of lime, is the *turnip crop.* On turnips, (ruta baga, mangels, beets, &c.,) this manure, when drilled with the seed, has a most magical effect — in many instances which we have seen, increasing the crop ten-fold. On clover, peas, &c., it does much good; but we think it will not *pay* on these crops. For Indian corn we cannot speak experimentally, but, reasoning *deductively*, we most confidently believe it will do little good, and certainly will not pay to use.

As a manure for turnips, we consider — in fact, we know — that any addition of sulphate of ammonia, guano, or anything that will injure the germinating principle of the seed when drilled with it, is a manifest detriment to the article; and we are sorry that those parties who at first manufactured plain superphosphate of lime, have been induced to follow the so-called improvements of other manufacturers, however influential. We would say to these gentlemen, manufacture a good superphosphate from *finely ground* animal charcoal, and sell it as low as you can afford; recommend it only as a manure for turnips, pumpkins, squashes, lettuce, young trees, &c.; and you will be entitled to the thanks of the agricultural community. But do not attempt *improvements*, nor recommend it for wheat, corn, &c.; for after you have done all, you can not make it equal, for these crops, to good Peruvian guano.

An easy method to determine the value of superphosphate of lime, is to take 100 parts, rub it well with distilled water added in successve quantities till everything soluble in water is dissolved, filter, and evaporate the clear liquid to one-third its bulk, add a little chloride of calcium, then precipitate by adding ammonia. This precipitate heated to redness should weigh 18 to 20 per cent. of a *good* superphosphate; if much less than this, it is an inferior or adulterated article.

## SPRING WORK.

*Indian Corn.* — Perhaps there is no crop that an American farmer cultivates about which so little is know as that of Maize. It is indigenous to the New World. It grows on the poorest sands, on the most tenacious clays, on granite rocks and rich alluvial bottoms. In some of the Southern States of the Union it is planted in January, and in the Northern ones in June. In every clime — on every soil, in this vast continent, Indian corn grows, as it were, spontaneously without the culture, care and attention of the planter. *The ease with which it is produced is probably one of the principal reasons why we have neglected to study its peculiar requirements.* Its importance all admit. Its seed is the most nutritious of all the cereals, while its stalks are of incalculable value as food for cattle during our long winters. Experience has taught us a few things respecting the physical requirements of the maize plant. It does not require so tenacious or compact a soil as the wheat plant demands. It delights in a loose, friable, warm, porous, deep soil, abounding in rich nitrogenous organic matter. It does well on all good wheat soils; yet it often does best on soils that will not produce good wheat.

If we furnish the wheat plant with all its manurial elements in the greatest profusion,

we cannot *average* more than fifty bushels of wheat per acre. By giving the maize plant all the fertilizing food it could assimilate, it is probable that we might average one hundred and ten bushels of shelled corn per acre. We can easily make a soil too rich for wheat. It would be rather difficult to give corn too much food, provided it is of the proper kind. How far it might be profitable to manure highly for corn with guano is yet a matter of uncertainty. There cannot be a doubt, however, that it is the interest of every farmer to make and apply all the fertilizing matter he can. Many of our Western farmers will tell us that it does not pay them to apply manure to corn. It perhaps does not the first crop, but in the long run he who makes most manure, will make most money. This is universal experience. We like to turn under a good sod fourteen inches deep in the fall for corn. If plowed in the spring the sod should be well buried, so as not to interfere with the necessary hoeing, &c. As a general rule, subsoiling answers better for spring crops than deep plowing. Many intelligent farmers do not plow their corn land till just before planting; they have thus considerable grass to turn under, and the soil is in first-rate working order. It is also said that the worm will feast on this recently buried vegetable matter, and will not attack the corn plant till it is well started, and so large as to receive little or no injury.

Plant early—the earlier the better, if the weather is warm and the soil in good order. More corn is injured from late ripening and early fall frosts than any other cause. It is possible to plant corn too thick. We have seen crops materially injured in this way, more especially in not ripening in proper time. Three feet apart each way, and four plants in a hill is the usual practice. It is better to plant too much seed in the hills than too little, as it is easy to thin them to the proper number the first hoeing. In preparing the seed it is common in this neighborhood to smear the corn with tar and dry it with plaster; this is said to prevent the crows from injuring it. Last year a friend of ours who feared injury from worms, smeared his seed corn with tar, and then put a half pound of flowers of sulphur, instead of plaster, to each peck of corn. The worms, though the lot was full of them, did not injure it in the least, and he had an excellent yield. Be careful not to cover the seed too deep; the shallower all seed is buried, so that *light is excluded*, the better. Mark out the lot both ways, so as to insure straight rows; the corn lot not only looks much better when the rows are straight in all directions, but you can horse-hoe much closer without risk of cutting up the hills.

You, of course, have saved a sufficient quantity of your own pumpkin seeds, selected from the best pumpkins. Do not spare it. Mix, at least, a quart of pumpkin seed with each peck of seed corn, and thin out if you think them too thick. Plant the corn in four feet rows, rather than not have a good crop of pumpkins—if for nothing else, it would pay to grow them to rot on the land for manure, but they are excellent food for hogs and cows in the fall. If plaster is obtainable for five dollars per ton it will pay to scatter a table-spoonful on each hill, when the corn is just through the soil. The beneficial effects are often times astonishing.

Will our intelligent practical correspondents give us their views in time for publication next month on the relative advantages of hilling up corn, or letting it remain as planted, merely keeping it clear by horse and hand-hoeing?

*Mangel Wurzel* deserve far greater attention from American farmers than they have yet received; they are as well adapted to the climate as any other root crop; they are not injured by insects or worms; they require no hand-weeding; and more nutritious food can be obtained from an acre of mangel wurzel than any other crop we are acquainted with. They should be planted in rows 30 inches apart, and from 12 to 15 inches in the rows. The seed can be dropped and covered with a hoe just as in planting corn. It is advisable to drop four or five seeds in a hill, so as to insure *one good plant*. Do not, on any account, be tempted to leave them too thick; have the rows, at least, two feet a part, and only one plant each 12 or 15 inches in the rows. Like Indian

corn, mangels are gross feeders, and it is almost impossible to have the soil too rich for them. Let the soil be well manured with well rotted dung or compost, and then if you can drop a pinch of superphosphate of lime in the hill *with the seed* it will give them a first rate start, and you may expect a good crop of thirty tons of bulbs per acre. Sow from the middle to the end of May.

*Ruta Baga.*—First and last, much has been written and said for and against ruta baga culture in this country. Many have condemned them untried, or at least with an imperfect trial; others think they will answer well in this climate, but that labor is so high it will not pay to grow them. We hope yet to see them and mangel wurzel as extensively cultivated here as in Great Britain, believing that the production of good crops of wheat and corn is intimately connected with the amount of roots, clover and peas grown and consumed on the farm. Ruta baga can be sown in June in the same way as recommended for mangel wurzel. Be careful not to cover the seed too deeply; more seed is lost in this way than in any other. By using superphosphate with the seed you may be sure of a crop.

*Potatoes.*—As soon as you can distinctly see the rows, run the horse-hoe through them, but do not go too close the first time. Nothing like taking weeds in hand in good season—not half the labor is required to kill them when young as when allowed to grow strong and cover the ground. Unless the soil is very light and sandy it is impossible to stir it too much. The idea that a good loamy soil looses ammonia or any valuable gases, or in fact any thing except water, is undoubtedly unsustained by fact. Whether soil has the power, to any great degree, of attracting fertilizing gases from the atmosphere, is yet a matter of uncertainty. One thing, however, is certain, that if stirring and exposing the soil to the atmosphere does not absolutely increase its ammonia, &c., yet they greatly assist disintegration and decomposition, and thus greatly increase the available organic and inorganic food of plants. Nothing can be more erroneous than the idea that weeds shade the ground and keep it moist in a dry time. It has been proved by experiment that an acre of clover throws off daily 8,600 lbs. of water. Every one knows how much sooner a bed covered with strawberry plants will be reduced to a dry powder than one not cultivated. Weeds act in the same way—instead of keeping the ground moist, they pump up the water and evaporate it with great rapidity.

## GREEN CROPS FOR BARN USE IN SUMMER.

It is the great number of cattle that a British farmer keeps on his farm which by furnishing so much good manure enables him to raise such good crops. The turnip crop, occupying one-fourth his farm, furnishes him the grand means of keeping so large a stock during the winter months; and the practice of soiling his horses and cattle, enables him to keep more animals than he otherwise could during summer.

By soiling is meant the system of feeding cattle in sheds and stables on green food grown for the purpose, instead of allowing them to graze the fields at pleasure. That more food can in this way be obtained per acre, few will question. That we can adopt soiling, except in some few cases near large cities, admits of some doubt. One of the great objections to the practice is the greater amount of labor required in mowing and carrying to the barn the green food, than in letting the cattle cut it themselves. Another objection is that our climate is not so well adapted for the production of succulent summer food as the cool moist climate of the British isles. Yet, as we have often said, we obtain heavier crops of red clover than do British farmers, and red clover is there considered one of the best crops for soiling purposes; and could it be grown with as

*much certainty* and in such quantity as in Western New York, it would be much more extensively used.

We believe it would pay every farmer to take an acre or two of clover, as contiguous to the barn as possible, and manure it highly in the fall or spring. It would be found of great advantage to cut and feed to the horses in the stable at noon, and for an hour or so before turning them into the field in the evening. A few acres so manured and *cut early* would afterwards yield a splendid crop of clover seed; or it might be mown twice, as green food for the horses and cattle.

We do not know what Italian rye grass will do for soiling purposes in our climate; it is certainly worthy a trial. If any of our readers have had any experience with it, they would greatly oblige by giving us their views.

Indian corn is perhaps the best food that we can grow for green food in summer. It stands drouth better than any other crop; and if the soil be rich, an immense amount of nutritious food can be obtained per acre—certainly more than from any other summer crop. For this crop the soil should be either naturally very rich or be well manured. Let it be prepared as you would your other corn land. The deeper it is plowed, and the mellower it is made, the better. *Four bushels* of seed should be sown broadcast per acre, as soon after corn planting as possible. If the soil is moist and in good, fine order, soak the seed corn for twenty-four hours previous to sowing. In this way it will be up in two or three days, and will get the start of the weeds; and if the corn is sown thick, and grows well, it will smother them all, and leave the land in good condition for the following wheat crop. Perhaps, however, it would be best to sow the corn in rows twelve or fifteen inches apart, and hoe it once or twice; the corn would grow more rapidly, and the soil would be cleaner.

Lucerne answers well for soiling purposes, but its cultivation is attended with considerable labor in keeping the soil free from weeds. It is a perennial plant, and does not reach its full growth till the third year. On a rich, sandy loam, well under-drained, plowed, and subsoiled, immense crops of lucerne can be grown. Guano is a splendid manure for this crop, and possesses the advantage of being free from weeds. Lucerne is sown early in the spring, in rows from one to two feet apart; eight or ten pounds of seed per acre. It must be frequently hoed and kept free from weeds, and should be cut but once the first year; in after years it will afford three or four crops in a season.

## EDITORIAL CORRESPONDENCE.

FARMING NEAR WASHINGTON.—We learn from the *National Intelligencer* that Mr. CHARLES B. CALVERT has been offered $50,000 for two hundred acres of his farm, and refused to take the money. Two hundred and fifty dollars an acre is a high price for farming lands, and it is only in consideration of valuable buildings and other improvements that one would be justified in paying any such sum. Riverdale, (as Mr. CALVERT'S estate is called,) contains but little less than three thousand acres, and lies north east of Bladensburg, extending from the village between three and four miles up a beautiful valley, watered by a fine mill-stream. The father of the present proprietor was a large tobacco grower, and most of this plantation has been much worn by this scourging crop, when often repeated on the same field. At present, the farm is mainly devoted to dairy purposes, producing milk and cream for the largest hotel in Washington, and a surplus for the market. The cows kept are the Short Horns, Ayrshires, Alderneys, and their crosses with the best native milkers. Hay is too valuable in the Metropolis to feed to cows in winter, as Mr. C. believes, although milk sells at eight cents a quart. Turnips, shorts, cut straw and cornstalks are more economical food, so that most of the hay grown at Riversdale is sold off the farm. It is a little remarkable how few understand the art of growing large crops of grass and hay in the United States. The quite unexpected and prodigious decrease in the number of sheep, cows, working oxen

and horses in the State of New York from 1845 to 1850, can only be accounted for by conceding the inability of the land to keep them, without more skill than has been applied to that purpose.

Mr. CALVERT'S does not come up to our ideal of what a grazing farm ought to be made. He, however, is soon to introduce extensive irrigation by steam power, and should his life be spared to three score years and ten, a model farm may be seen in Prince George's county, Maryland. A new octagon barn one hundred feet in diameter has recently been erected by him, having a skylight in the center, with ample storage for turnips and forage over the first story, which is devoted entirely to stalls for cows. These stand in two rows quite round the building, leaving an open center-space of thirty-two feet in diameter. Mr. C. prefers the ground to plank floors for cattle to stand upon, which is kept clean and smooth, and generally bedded. A horse and cart may be driven round behind all the cows in the stable for taking up manure; and so much of the urine as is not absorbed by the straw and other litter, runs into tanks. From thirty to forty thousand bushels of turnips are fed in a year, which are sliced with turnip-cutters. Cows graze in the field in the summer season; although it is believed that soiling is more economical where good land is dear and labor cheap. After the steam engine is made to convey all the manure from the stables to the fields in a liquid state and properly diluted for distribution, soiling will be still more profitable; for a good crop of grass may be cut every four weeks during seven or eight months, in the climate of Washington, with proper irrigation and manuring.

The writer has now seen the opening of four springs in the District of Columbia, and watched the capabilities of the soils and seasons of this region with lively interest. It possesses agricultural resources of a high order, which science and capital are bound to develop at no distant day. Hundreds of imigrants from the Northern States are purchasing farms, or vacant old fields to make them, much to their advantage; and southern markets already experience the benefits of the new impulse given to horticulture, tillage and husbandry, by the new comers. So great has been the demand for timothy and clover seed that the former has sold at $4, and the latter at $7.50 a bushel this spring in Washington. Acres of cabbage plants set out in December, are now nearly large enough to gather for market. Clover is as forward at the 10th of April as it is in Western New York by the 10th of May. Lime, plaster, bone dust, and guano, are the amendments purchased by thriving farmers; and the effects of these are generally very satisfactory.

Good cows sell at from $30 to $50; oxen at from $50 to $150 a yoke. Beef, pork, mutton, lambs, veal and poultry, pay the producer a good profit. Eggs have been 75 cents a dozen, and butter 40 cents a pound; but both are now much cheaper. We have bought our seed potatoes in the country (White Mercers) at 50 cents a bushel, which is 50 per cent. cheaper than we have known them in four years. Corn has also been sold as low as 50 cents a bushel in the District by the quantity.

For making chopped feed, straw, husks, cornstalks and blades sell much higher, relatively, than corn. The increase of population in the District, aided by the more rapid increase of wealth, horses and cows, keeps the demand for forage in advance of the supply. Hence meadows and pastures are objects of great importance; and we think that farmers every where neglect them too much for their own interest. They yield the much needed manure, and should be improved by all.

## BRITISH AND AMERICAN AGRICULTURE.

(*Continued from Page* 113.)

*B.* I thought a few days since that we were going to have spring on us before we were ready for it, but the last few days have worn a more wintry aspect, and have greatly retarded vegetation. On the whole, however, we have had a remarkably mild winter throughout the United States, and the prospects for fruit and all agricultural and horticultural products was never more cheering. Had we not had a temperate winter, the cattle, in many districts, must have suffered much from "short commons," as the hay crop last year was very poor in some places. In seeding land down for permanent meadows, what grass seed would you sow?

*A.* In Western New York I know of nothing that answers so well for all purposes as timothy and clover.

*B.* I thought, perhaps, you might have picked up something in your travels in Europe that would be better for permanent meadows than our own grasses.

*A.* The English sow a vast variety of grasses on land they intend laying down for grazing purposes, and it is possible that some of these might prove of advantage here, but there is none that, without trial, I would recommend to you. The climate and the nature of farm operations are so different in England to what they are or ever can be with us, that any grass that is of great value to the British farmer would probably be useless here. Thus, vetches are the best crop a British farmer can grow for succulent summer food for "soiling" his horses, milch cows, &c. Immense crops of them can be grown, and they are very nutritious; horses and cattle are exceeding fond of them, and, best of all, they are a good substitute for a summer fallow on heavy land—smothering all weeds, exhausting the soil but little, and leaving the land in first rate condition for the following wheat crop: yet Scotch and English farmers have repeatedly attempted to grow vetches *here*, but *without success*. Italian rye grass is worthy a trial, especially in the Southern States. I think it would succeed well there, but I doubt if it would be of much service here. It is principally prized in England as an early food for ewes and lambs in spring, affording good feed three weeks or a month earlier than clover. It is a good substitute for rye, which formely was extensively grown for this purpose. When Italian rye grass is once in the ground, it will last for many years. It is destroyed only with great difficulty, and hence should not be sown except for permanent meadow or grazing land.

*B.* I think hay, when it sells as it has for the past year or two in Rochester for $12 to $15 per ton, is about as profitable a crop as wheat, and is attended with less labor and expense. I heard you say some time since, that you were going to sow guano on your big meadow this spring; do you think it will pay? If it will, I would like to get a ton and sow on my ten acre meadow.

*A.* I cannot tell, but intend trying it. I think it will pay better on grass than on either wheat or corn—inasmuch as hay sells for a proportionally higher price. In England they use large quantities on their permanent meadows, and when I was there hay was only worth $15 per ton gross; so that if pays them at that price, I think it must pay us.

*B.* What is guano worth now, and how would you sow it?

*A.* It is in great demand at present, but I believe they have not raised the price which is $45 to $50 per ton for the genuine Peruvian, and I should have no other. Saldana Bay and other cheap kinds are generally as dear as they are cheap. The best way of using it, I should think, would be to make it into a compost with peat or some good loam, and let it lie all winter, spreading it on the meadow early in the spring. This year, however, I cannot do this, and shall sow it broadcast 250 lbs. per acre, in as showery weather as we may chance to have. I have seen where part of a grass field had been sown with guano, and a part not, the cattle would eat the grass on the part guanoed quite close, while there was a good bite untouched on the unguanoed portion. This was probably owing—not as has been supposed, from the guanoed grass being more nutritious, but because it was younger, more succulent and tender, growing with greater freshness and rapidity than the other grass.

*B.* I once observed the same thing on some grass on which I had spread quite a quantity of old leached ashes; the moss disappeared, the grass assumed a rich, dark color, and the cows eat it closer than on the part not so dressed.

*A.* From the *Gardener's Chronicle* I should judge that the Rev. Mr. Smith was the great agricultural lion in England just now. He has revived the old Tullian system of planting and hoeing wheat, &c., and grows immense crops of wheat on the same land each year without manure, simply by forking the land eighteen inches deep, and frequently hoeing it during spring and summer. He is said to have raised eighty bushels of wheat per acre in this way. He finds this method of fertilizing the soil, by forking and hoeing, far more economical than purchasing guano, &c.

*B.* I saw some accounts of it in the December number of the *Genesee Farmer*. The editor embraced the opportunity to give us a good lecture on the advantages of clean culture and thorough pulverization of the soil, but he did not endorse the statement that these large crops could be grown for any length of time without manure, simply by forking and hoeing the soil.

*A.* No; Dr. Lee has too long contested the abused idea that we can annually remove from a soil the elements of crops without impoverishing it to endorse such opinions. He has always said of the soil, as poor Richard said of the meal tub, "always taking out, and never putting in, soon comes to the bottom." It appears to me there must be some exaggeration in these statements.

When I was in England, Mr. SMITH's experiments received but little attention, and would probably have received but little now had not Prof. WAY called attention to them—stating that he saw nothing improbable in them, or any thing contrary to what he believed to be true scientific principles. He thought that by constantly and repeatedly exposing the double silicates of alumina and soda existing in clay soils they would attract ammonia sufficient for large crops from the atmosphere; hence Mr. SMITH's success. Now, to my mind, these experiments show nothing of the kind. Admitting that eighty bushels of wheat have been grown per acre according to this method, it does not follow that the ammonia necessary to grow such a crop was all obtained from the air. Many soils contain very large quantities of the raw materials of plants in a latent condition—nitrogen (capable by decomposition of furnishing ammonia), among the number. If a soil contains only a tenth of one per cent., as small a proportion as chemists can *accurately* determine, an acre ten inches deep would contain a ton of nitrogen. Now, by constantly stirring such a soil, admitting in light and air, decomposition would be greatly accelerated—this latent nitrogen would be converted into ammonia, and the plants would flourish accordingly; so that the fact of Mr. SMITH having produced such large crops does not prove that the *atmosphere* is capable of supplying all the ammonia that plants require. I had a letter from a gentleman in England some time since who had been induced to try half an acre of wheat on Mr. SMITH's plan. His is a first rate wheat soil—as good as our Western New York wheat land—resting on chalk. He obtained no more than an ordinary yield—*not half* as much as obtained annually by Mr. SMITH. This same soil by an application of ammoniacal salts *alone* yields very large wheat crops, and hence contains all the mineral elements necessary for a large crop; so that I see nothing in these facts at all inconsistent with the assertion of the *Genesee Farmer* that though a soil contains great abundance of all the inorganic elements of plants, yet the atmosphere is not capable of supplying ammonia for more than eighteen bushels per acre annually.

*B.* How is it that summer fallows on good clays so increase the wheat crop? I have frequently obtained thirty-five to forty bushels of wheat per acre on a good summer fallow plowed early in the spring and twice afterwards, with the necessary dragging, &c., and yet on the same soil, if I sow wheat after wheat, I obtain but a small yield.

*A.* The reason is very evident. There falls sufficient ammonia on an acre of land in a year to suffice for the production of eighteen bushels of wheat. Now, if your soil is destitute of nitrogen and contains a sufficiency of minerals, you can annually grow eighteen bushels of wheat per acre—but no more unless ammonia is artificially supplied. But supposing you summer fallow a good stiff clay, the silicates of alumina, &c., would retain the ammonia of the rain which falls during the year it lies fallowed, and so the next year, instead of having sufficient ammonia for eighteen bushels of wheat, you get sufficient for thirty-six bushels. This, however, would not be the case if the soil did not contain the alumina and soda; hence it is folly to summer fallow sandy soils.

*B.* Yes; I would never fallow a sandy soil if I could help it; I would grow good crops of clover and then turn them under—sowing the wheat at once plowing and twice cultivating. I think a summer fallow is unnecessary on such soils, if great pains are taken to clean the soil well when it is in corn; it should be horse and hand-hoed till there was not a weed in the field. The corn is greatly improved by the hoeings, and the land is left clean and in fine condition for the next crop.

*A.* They have had one of the wettest wheat-sowing seasons in England ever remembered. The gentleman I spoke of just now says he waited from the 10th October to the 22d of March for a good day to sow a field of wheat, and having got it in on the 22d it was covered eight inches deep with snow on the 23d. But little wheat has been sown in some districts, and the probability is that we shall be called upon to supply a larger quantity of wheat for the use of John Bull's numerous family than usual. An increased demand will, of course, not lower the price; how far it will tend to enhance it remains to be seen. There is also unusual activity in the wool market in England; prices this last month have gone up ten per cent. Manufactures were never more brisk and prosperous, and from the unprecedentedly low state of the stocks on hand it is *certain* that present prices will be fully maintained, and it is *probable* that they will be much exceeded. Under such circumstances I fully expect a high price for our next clip of fine wool—for though we do not export wool, a rise in the British markets always increases the price here.

DOES PASTURAGE IMPOVERISH THE SOIL?—In your remarks below my communication on page 252, Vol. 12 of *Farmer*, you say: "But let them beware lest the few precious atoms in their soil which form the bones of their cattle and other stock, are not all extracted and either sold or lost before they dream of such a misfortune. The things that really make beef, cheese, wool, and horse flesh, are not so abundant in the surface of the earth, even in the fields of luxuriant clover and timothy of Hornby, as to be perfectly inexhaustible." Now, friend LEE, I had formed the idea from what I had seen, that pasturing land enriched instead of impoverishing its soil. We have many large fields that have grown more and more fertile for the last twenty-five years, and constantly pastured. The application of one bushel of plaster per acre is all the manure aside from what is dropped, that any of our pastures receive, and that they are growing sterile I can hardly believe. What think you of the prairies of the west, the pampas of South America, and the steppes of Asia—are they not growing more and more fertile?—and yet they have been constantly pastured for ages, and not one whole acre in five thousand has ever received a direct application of manure, other than its own decayed vegetable growth. I don't hardly believe yet that the removal of a few hundred pounds of bones, flesh, wool, &c., from fifty acres of pasture will ever impoverish the soil. Hope to hear a little more from you on this subject. WM. H. GARDENER.—*Hornby, N. Y.*

We thank our correspondent for calling our attention to an interesting branch of husbandry. In speaking of the exhaustion of pastures on the farms of Hornby, we had no reference to permanent grazing lands, like wild prairies in Illinois, Brazil, or the steppes of Central Asia. In all cases where all the excrements formed by the food consumed are restored to the soil that produced the food, and also the bones of the animal at its death, (which is Nature's plan for preserving the fertility of land,) no deterioration occurs. But the pastures on which the million of cows in the State of New York graze, are not, as a general thing, treated in the manner indicated. Cows come out of pastures at night with their digestive organs full of grass, and their udders distended with milk, the product of herbage. In the morning they return to their grazing walks with empty stomachs, and minus several gallons of milk. This operation long continued differs very little from cutting with a scythe an equal quantity of herbage, whether clover or timothy, and carrying it out of the field on a wagon or cart, instead of in the body of a cow. Our Hornby friend, however, should know that there is this difference against the depasturing process as compared with what is called the soiling of cows and other stock. The roots of forest trees, apple trees, clover, and other plants, grow in weight and volume somewhat in proportion to their stems, branches, and leaves. Hence it has been found quite injurious to the full development of the roots of clover, to permit cattle, horses or sheep to cut it close with their teeth and jaws. In other words, this severe pruning checks the growth of the plant, so that in the six best grazing months, only about half so much clover stems and leaves above ground, and half the quantity of roots below ground, are produced as there would be if no such severe pruning had been performed. This is a substantial argument both in favor of soiling and never turning stock into clover fields or common pastures when the herbage is small and young. We have not now room to discuss this subject further, but will resume it an early day.

WOOL GROWING IN THE WEST.—I have for several years been dissatisfied with the profits arising from keeping fine wooled sheep. My experience is, that it does not pay to keep sheep for their wool alone, without mutton or lambs. Some three or four years ago considerable attention was paid to purchasing and raising sheep, but from the depressed state of the wool market it is decidedly falling off. Farmers in the Western States have also learned that growing wool is not the profitable business that it was represented to be by those who bred sheep to sell at three times their value. The demand east for good horses, cattle and swine, is much more urgent than for wool; hence they command high prices. Good swine in decent order are worth in this State $5 per hundred for the eastern markets. A drove of seven hundred swine passed through Ypsilanti the other day bound for Boston. If western farmers will turn their attention to breeding good horses, cattle and hogs, the eastern drover will be after them and pay good prices. The supply is not equal to the demand, and prices will continue to rise. W. ANDERSON.—*Michigan.*

EXTERMINATION OF THE WIRE WORM AND CANADA THISTLE.—For several years I had plowed my land and sown wheat, and got but little, it being destroyed by the worms. I became almost discouraged, and at last concluded to try an experiment, which was as follows:

I had a field of four acres very unpromising for wheat, containing several patches of Canada thistles, and the sod being nearly eaten up by worms. I plowed the field and sowed it to buckwheat. The next season I put three horses to a plow that cut sixteen inches deep, and turned it over the last of May; then dragged it down and covered with barn-yard manure, and plowed it in. After plowing it in lands four paces, the first week in September I sowed it to wheat, which yielded twenty bushels per acre, and entirely destroyed every thistle. The next season I followed the same course with another piece of three and a half acres, except that I sowed it the last week in August. Last summer I harvested thirty-four bushels and nine quarts to the acre, beside considerable being shelled and destroyed by a hail storm during harvest. I also destroyed every Canada thistle on that piece. Last season, three of my neighbors tried the same process in preparing ground for wheat, which looks promising.

I would here say that no one need think of destroying Canada thistles by plowing as I have seen it done—only three or four inches deep, and the surface not more than half broken, leaving many here and there to go to seed. The land should every inch be broken. Take time, and do it well. If a stone throw the plow out, back up and start again.

I find that very deep plowing is not good for spring crops; ten or twelve inches is sufficient only on land that is summer fallowed. C. B. GILBERT.—*Pultney, N. Y.*

MAXIMUM RUTA BAGAS.—I beg you will allow me one more "last word" on the turnip crops of England. My reasons for believing that over forty tons have been raised there, are these: Numerous crops of this weight have been reported; that the English farmer is more thorough in determining the amount of his crop than we are; that the rent of land is sometimes paid in this article, requiring its true weight to be known; that careful experiments in feeding are made with the turnip, requiring also the true weight; and, finally, these great crops are offered at fairs for large premiums in competition so close as to secure accurate measurement. Your explanation that all these super-forty-ton crops are the result of careless measure and exaggerated estimates will apply to some, perhaps to many, but to suppose it will account for *all* seems to me inconsistent with a proper estimate of testimony. But enough of this.

Your estimate of the pretensions of Prof. COMSTOCK agrees with my own. He lives near me, and, of course, we have the advantage of the direct rays and full effulgence of this new luminary. I have been exactly in your dilemma, for the first time I met the unfortunate he talked *to* and *at* me unmercifully for more than an hour, when, at last, out of breath, I had a chance to inquire whether he was trying to convey to my mind *one* idea or *several!* Human credulity is stupendouss! JOHN T. ANDREW.—*West Cornwell, Ct.*

WIRE WORMS.—The wire worm has been the bane of farmers in this vicinity for a number of years, and numerous experiments have been made to stop their ravages, but generally without effect. Three years ago, in planting a field with corn where several crops had been destroyed by the wire worm, I soaked the seed in copperas water forty-eight hours—then applied one pound of sulphur to each bushel of seed—the sulphur adhearing to the grain—and planted it. The result was, the worm did not make its appearance. The crows pulled up the corn in a few hills, but left the grain untouched, and did not visit the field again. I have used it with equally good success the last two years. Last year I tried the sulphur on my seed wheat, and the worms did not touch it, where two years before they had destroyed my whole crop. I dampened the seed with water, and then mixed the sulphur through it, putting twenty pounds of sulphur to one hundred bushels of seed. I use a drill, and think the sulphur cannot be applied where the grain is sown by hand. GILBERT BAKER.—*Milo, Yates Co.*

EXPERIMENT WITH GUANO.—In July, 1850, I sowed a field of 2¼ acres with buckwheat. Of this, two acres were sown with guano, about 90 lbs. to the acre; the remaining ¼ of an acre had no manure of any kind. We harvested and threshed in October, and from the two acres sowed with guano we had 51 bushels of good plump grain; and from the ¼ of an acre not guanoed, we had 2½ bushels of poor, shrunk, good-for-nothing.—*Penn. Farm Journal.*

SMALL FARMS AND THOROUGH CULTIVATION.—The celebrated Mr. ROBERT BAKEWELL, of Dishley, Leicestershire, and the founder of the New Leicestershire sheep, used to tell an anecdote with exceeding high glee of a farmer not only of the olden school, but of the golden times. This farmer, who owned and occupied one thousand acres of land, had three daughters. When his eldest daughter married, he gave her one-quarter of his land for her portion, but no money; and he found, by a little more speed, and a little better management, the produce of his farm did not decrease. When his second daughter married, he gave her one-third of the remaining land for her portion, but no money. He then set to work, and begun to grub up his furze and fern, and plowed up what he called his poor dry furze, covering in some places nearly half the land. After giving half his land away to two of his daughters, to his great surprise he found that the product increased; he made more money because his new broken up furze land brought excessive crops, and at the same time he farmed the whole of his land better, for he employed three times more laborers upon it; he rose two hours sooner in the morning, had no more dead fallows once in three years; instead of which he got two green crops in one year and ate them upon the land. A garden never requires a dead fallow. But the great advantage was, that he had got the same money to manage five hundred acres as he had to manage a thousand acres; therefore he laid out double the money upon the land. When the third and last daughter married, he gave her two hundred and fifty acres, or half which remained, for her portion, and no money. He then found that he had the same money to farm one-quarter of the land as he had at first to farm the whole. He began to ask himself a few questions, and set his wits to work to see how he was to make as much of two hundred and fifty acres as he had of a thousand. He then paid off his bailiff, who weighed twenty stone! rose with the lark in the long days, and went to bed with the lamb; he got twice as much work done for his money; he made his servants and laborers, and horses, move faster; broke them from their snail's pace, and found that the eye of the master quickened the pace of his servant. He saw the beginning and ending of every thing; and to his servants and laborers, instead of saying, "go and do it," he said to them, "let us go, my boys, and do it." Between come and go he soon found out a great difference. He grubbed up the whole of his furze and ferns, and then plowed up the whole of his poor grass land, and converted a great deal of corn into meat for sake of the manure, and he preserved his black water (the essence of manure); cut his hedges down, which had not been plashed for 40 to 50 years; straightened his zig-zag fences; cut his water courses straight, and gained a deal of land by doing so; made dams and sluices, and irrigated all the land he could; he grubbed up many of his hedges and borders covered with bushes, in some places from 10 to 14 yards in width, some more in his small closes, some not wider than streets, and threw three, four, five and six closes into one. He found out that, instead of growing whitethorn hedges and haws to feed foreign birds in the winter, he could grow food for man instead of migratory birds. After all this improvement he grew more and made more of 250 acres than he did from 1000; at the same time he found out that half of England was not cultivated at that time for want of means to cultivate it with. I let him rams and sold him long-horned bulls, (said Mr. BAKEWELL,) and told him the real value of labor, both in doors and out, and what ought to be done with a certain number of men, oxen, and horses, within a given time. I taught him to sow less and plow better; that there were limits and measures to all things; and that the husbandman ought to be stronger than the farm. I told him how to make hot land colder, and cold land hotter, light land stiffer, and stiff land lighter. I soon caused him to shake off his old deep-rooted prejudices, and I grafted new ones in their places. I told him not to breed inferior cattle, sheep, or horses, but the best of each kind, for the best consumed no more than the worst. My friend became a new man in his old age.—*Gardeners' Chronicle.*

---

TIME TO CUT TIMBER.—From tradition, I had cut hoop-poles in the autumn and fencing stuff in the winter, perhaps for the convenience of moving rails, especially by sledding, and because the draught on the labor of men and team is less pressing than in summer; but I found that posts would rot off at the surface of the ground, if sandy, in a few years, and the sap of rails become defective, and worms, and wet, accelerate decay. It was therefore a great tax to support several hundred rods of post and rail fence on pine plain. In a few instances, posts were morticed at the butt, and the tip end set in the ground, and these were sound when the others failed! I read of a ship carpenter, who cut the timber for a vessel in Fedruary, and built it; but being short of a few plank, he cut and sawed them in the summer, and he lived to see the plank all a dead rot under the paint, except the few cut last, which had no appearance of decay!

In 1840, I designed to make posts of several large oak trees, and it was quite an object to peel them, for tanners' bark, so I waited till the summer solstice, cut and peeled and made them into posts, which stand well to this day. At the same time, I split some staves and cut some poles as hoops for a pork barrel, which was made, and though the bark peeled from the hoops the first year, they are now as sound and tight as ever, while I have formerly lost much by their failure in damp cellars, sometimes in a single year. I have been thus particular to convince the skeptical, by assigning my experience of the profit of cutting and peeling when all the saccharine portion of the sap is in the full leaf, when the peeled surface dries and becomes hard and impervious to water—and also, the reason why I set the tops of post downward. In addition to this, if lime-mortar is put round posts, I reckon that the man will not live to see them need resetting.—*Cor. Boston Cult.*

SOWING CORN FOR FODDER.—In answer to an inquiry the *Country Gentleman* says:

We have cultivated corn for fodder for many years, and find it, all things considered, the most profitable crop we can raise. It may be sown during the comparative season of leisure just after corn-planting, and secured at the next season of leisure just after haying and harvesting. After repeatedly cropping the same ground, we are satisfied that it rather enriches than impoverishes the land, no grain being formed, and a vast bed of roots remaining. Nothing is equal to it for reducing rough, turfy, weedy land, to a state of cleanliness and good tilth. We believe it the best fallow crop in the world, to precede wheat.

*It should never be sown broadcast.* The imperfections of this mode are the chief reasons that the crop has not become more generally introduced. It requires more seed, and leaves the ground in a fouler condition than when sown in plowed drills. We have tried both ways to our entire satisfaction as to the comparative value of each. The following is the best mode for sowing, cultivating, and securing the crop:

Plow and harrow the ground as for any other crop; furrow it with a one-horse plow, three feet apart; let a man pass along one of these drills with a half-bushel basket on his left arm containing shelled corn, and strew the seed in the furrow at the rate of about 40 or 50 grains to a foot, which will be about 2½ or 3 bushels per acre. He will do this evenly, with a little practice, as fast as he can walk. If sowed thiner, the crop will be smaller. We have found by accurately weighing and measuring, that 20 grains to the foot yielded only two-thirds the crop afforded by 40 grains to the foot. Immediately after the sower, follows a man with a one-horse harrow or cultivator, or with a two-horse harrow, *lengthwise* with the furrow, and covers the seed. Two men will thus plant six or seven acres in a day.

When the corn is six inches to a foot high, run a one horse-cultivator between the rows. This is all the dressing the crop needs. No hoeing is necessary, for the dense growth soon smothers down all else; and in the autumn, when the crop is cut off, the earth is left as clean as a newly plowed field.

It is to be harvested about the first of autumn. If the crop is very heavy or much "lodged," it is cut by reaping. If straight and even, a common scythe will answer the purpose, a little practice enabling the operator to throw it smoothly with the heads in one direction. After partly drying, for a day or two, the best way is to tie it in bundles and put it up in large shocks, although raking by a horse into winrows for cocks, might answer well for large fields. It must dry some weeks. It can *never* be safely put into *large stacks*. The most perfect way would be to place it in small stacks or long upright rows, under a large shed. Even if the stalks appear perfectly cured after several weeks exposure, they will certainly heat and spoil if stacked in the ordinary way. Hence, the stacks must be quite small, freely salted, and well ventilated by means of them or four poles placed upright in the center. We have found the stalk to retain a good condition when left in large, well made shocks on the field, till wanted in winter. Curing is the only difficulty with this crop, and this ceases when understood.

Land that will yield thirty bushels of corn to the acre, will afford about *five tons* of dried fodder. Moist land is better than very dry, as it is more affected by drouth than ordinary corn crops. We have not found the cost, including interest on the land, to exceed $1,50 per ton for the dried fodder.

For soiling, or feeding green, corn fodder often proves of the highest value, when pastures are burnt by drouth. For this purpose, it may be sown at different periods till mid-summer.

---

FALL PLOWING.—I have been a practical farmer for some time, and a constant reader of agricultural works, and yet can I never adopt the popular plan of plowing my corn ground in the fall. I have frequently conversed with the advocates of fall plowing, and the principal reasons urged are: a preventive against the cut-worm, advance with their spring work, and that their teams are in a better condition to do work in the fall than in the spring. The first of these reasons may, in a measure, be an inducement to some for fall plowing; but to me it is not, for I never have had much trouble with the grub. My mode of management is, to plant deep with the hoe, and not too early in the season. The advantage I find in planting deep is, that if the worm cut off the stalk, it still grows on without injury, and if planted shallow, the worm takes it so close to the grain that it must die. As to the the two other reasons, I think they should have little weight, for in my opinion, teams well wintered, are better able to perform hard work in the spring than they are in the fall, after a whole summer's hard work.

My own experience, too, has taught me that ground plowed in the fall, and subjected to the action of the frosts, heavy rains and snows of our winter, will become hard and unmanageable the following spring, and then will require as much labor to get it properly pulverized as another plowing; and then my impression is, it will not retain moisture as well as spring plowing. Another reason for spring plowing is, that it can be better done than in the fall, the ground being always in better order for plowing. I have seen plowing done in the fall that I would not have thanked a man to have done for nothing, on my farm, in consequence of the ground bein too hard.

To prove my position, I find, in referring to agricultural works, that where there has been an extraordinary yield, it always has been the product of spring plowing. In looking over the February number of the *Farm Journal* I find, for raising the premium crop of 160 bushels per acre, Mr. WALKER plowed in the beginning of May, and planted the last of May. In the same number

of the *Journal* I find, for the next premium crop, Mr. McCrea has given his time for plowing as some time in March, and that very little after culture was necessary to keep down the weeds.

In the January number of the *Priarie Farmer* of 1847, I find an article signed A. L., which speaks thus of fall plowing for corn: "In the place where I live, fall plowing for corn, after repeated trials, has mostly been abandoned on old land, especielly early fall plowing. I have succeeded best with the corn crop—taking into account labor and yield—where the planting followed the plowing as soon as possible."

I shall here say that I fully concur with A. L. in saying that taking into account labor and yield he is in favor of spring plowing. I have always found the yield better in spring plowing, and labor much less in keeping weeds and grass down.—*Samuel Mumma, in Penn. Farm Journal.*

---

Small vs. Large Horses.—The arguments may all be in favor of great size, but the facts are all the other way. Large horses are more liable to stumble, and to be lame, than those of middle size. They are clumsey, and cannot fill themselves so quick.

Overgrown animals, of all descriptions, are less useful in most kinds of business, and less hardy than those of a smaller size. If theory is to be resorted to in order to determine such questions, we suggest to the lovers of overgrown animals, the following: The largest of any class is an unnatural growth. They have risen above the usual mark, and it costs more to keep them in that position, than it would were they more on a level with their species.

"Follow nature," is a rule not to be forgotten by farmers. Large men are not the best for business. Large cows are not the best for milk. Large oxen are not the best for traveling. Large hogs are not the hogs that fatten best, and large hens are not the hens to lay eggs.

Extremes are to be avoided. We want well formed animals, rather than such as have heavy large bones. Odd as it may seem to the theorist, short legged animals invariably prove to be better travelers than any. Short legged soldiers are better on a march, and the officers say they endure hardships longer than those of longer limbs.

On choosing a horse, take care by all means that his hind legs are short. If they are long, and split apart like a pair of dividers, never inquire the price of the horse dealer; run for you life, and make no offer lest you be taken up.

Horses that are snug built are not always fast travelers. It is no easy matter to select a horse that is perfect in all points. Snug and tough horses are not fast on the road. The fastest trotters are not always made for very hard services.—*New England Farmer.*

---

Broom Corn.—From the tenth to the twentieth of May is the right time for planting this crop. Select the piece of ground most free from weeds, and prepare it as for Indian Corn; that is, plow it deep and mellow, and harrow smooth. The best soil is a true loam. The best manure, a rich compost, plowed or harrowed in.

Mark off the rows three and a half feet apart with a chain, or some other contrivance that will only make a mark on the surface, as the seed should not be buried deep, or placed in the bottom of a furrow.

*Preparing the seed.*—It is the practice with the best broom corn growers, to pound the seed with a club until the hulls are broken off, when the chaff is winnowed out.

*Proving the seed.*—By putting a handful in moist earth, kept warm, until it sprouts, is a very good plan. If it all sprouts, be careful in planting not to get too much in the drill.

The stalks should stand about four or five inches apart. Some prefer it in hills, of four to six stalks, twenty inches apart. If too much seed is planted, you will have a task to thin it out. As soon as the rows can be seen, run the cultivator between, so as to cut very close to the corn, as it is important to keep down the grass. The great task is in the first hoeing.—*New York Agriculter.*

---

Buggy Peas.—In this and many other sections of the State, we are troubled with buggy peas. A few years ago, I sowed a field of peas, in part with seed of the previous year, and in part with seed two years old. They were of the same kind, and sown the same day, and were sown along side of each other. The product of the new peas was very buggy, while in that from the old I scarcely found a bug. The next year, I had no old seed, and used seed of the previous year. The result was, a crop of buggy peas. I kept some of the seed over the second winter, and sowed it the third year. The result a good crop, almost entirely free from bugs, while fresh seed the same season, produced very buggy peas as before.—*O. F. Marshall, in Country Gentleman.*

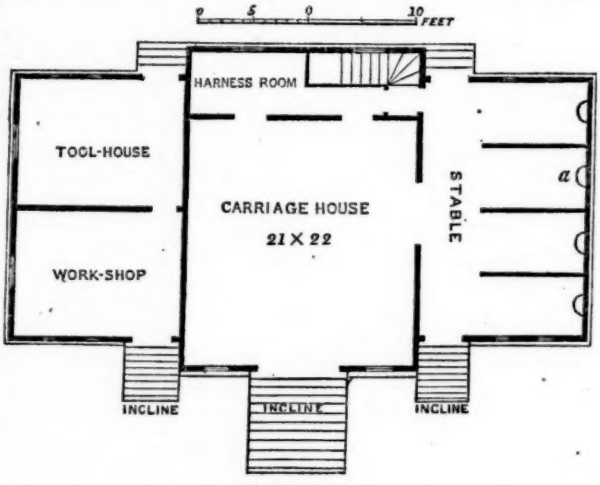
---

Sowing Oats among Corn for Cut Worms.—I have seen it stated in agricultural papers, perhaps more than once, that sowing oats on sod ground, just before planting it in corn, would prevent the worms from cutting it, as they would feed on the oats, leaving the corn unmolested. Last spring I tried the experiment, and the result was, that the corn was nearly all eat up, and the oats left, seemingly, hardly cut at all. The truth is, the troublesome gentlemen prefer corn to any thing else, and will have it when they can find it. I also found it quite difficult to eradicate the oats from among the little corn which was left.—*R. T. Reed, in Indiana Farmer.*

## CARRIAGE-HOUSE AND STABLE.

One of our correspondents suggests that as we have given various ground plans for barns and stables, that we should give a plan for a stable and carriage-house — one that shall be an ornament to the grounds, instead of an eye-sore, and at the same time answer well the purposes for which such a building is needed. We therefore copy an article from the *Horticulturist*, with illustrations, which will perhaps come as near what our correspondent wishes as anything we could give:

"This stable is intended to produce a picturesque effect externally, and to contain internally all the convenience demanded in a building of this class. The central portion contains the carriage-house, with space for four vehicles, and a harness-room at the end of it. On one side of this is the stable — the stalls 5½ feet wide, with racks supplied with hay through wells, over each rack, in the floor of the hay-loft above. A flight of stairs leads from the end of the stable to the hay-loft above, and is placed here, (and not in the carriage-house, as we frequently see it,) in order to prevent any dust from the hay-loft from finding its way into the carriage-house. On the other side of the carriage-house are a tool-house and a work-shop.




GROUND PLAN.

All the doors in this stable slide upon iron rollers running upon a piece of plain bar iron above the door. These iron rollers are attached firmly to the door by iron straps; and the door, being thus suspended, not only runs much more easily and freely than if the track were at the bottom, as is usually the case, but the track is not liable to get clogged by dust or other matters falling upon the floor. Besides this, a sliding door in a stable, when opened, gives the largest possible egress in a given space, and can never stand in the way to the injury of horses or carriages passing in or out on either side.

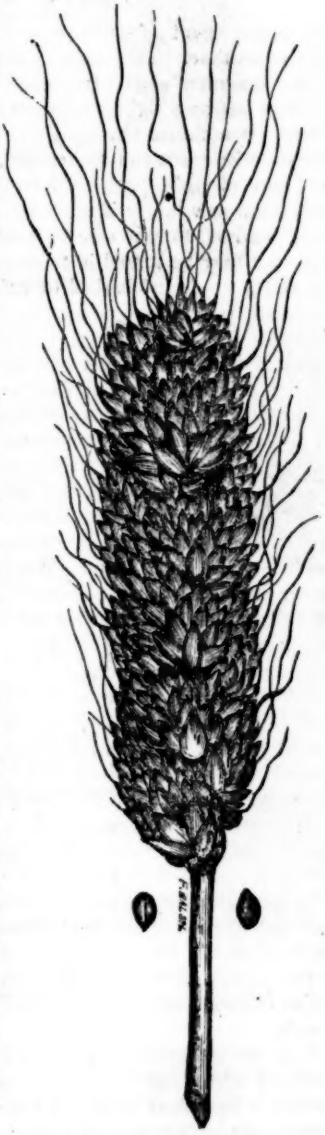
The high roof of this building gives a good deal of room in the hay loft, and the ventilation on the top keeps this space cool and airy at all seasons. The whole is built of wood, the vertical boarding battened in the ordinary manner."

The plan is excellent for the place for which it was designed — a suburban residence — though the farmer may think it altogether too limited and too expensive for his purpose.

We have just received plans of a barn to be erected at Great Barrington, Mass., for DAVID LEAVITT, Esq. It is to be called "*Cascade Barn*," and was designed by J. WILKINSON, late principal of the Mount Airy Agricultural Institute, Penn. The estimated cost is $10,000. The material of the building is to be wood, except the lower story on both sides and the second story on one side, which is to be stone. There is a mill stream running through the farm, and the buildings will be so arranged that all the machinery can be worked by an over-shot water wheel of twenty horse-power, placed in the basement. Being on a side-hill, the building is so arranged that there is a carriage drive into each of the three stories.

---

AFRICAN WHEAT. — We have received from Mr. ADAM S. KILLMAN, Pelham, C. W., sixty-nine heads of African wheat, said to have been all produced from one grain. The ears are rather small, but well filled. The accompanying engraving, taken from one of the sixty-nine ears sent us, will give an idea of the distinctive character of this variety. We are not sufficiently acquainted with the wheat to recommend it to our readers as a superior article. We believe that it is grown to some extent in the township of Pelham, and gives great satisfaction. Mr. ROBERT G. KILLMAN obtained the first prize for the best two bushels of clean wheat, at the Pelham show; it was African wheat, and weighed 65½ lbs. per bushel. Mr. KILLMAN has experimented considerably in raising new varieties of wheat. He once obtained ninety-six bushels of white wheat from one head in three years. He thinks the African wheat the best he ever saw.



AFRICAN WHEAT.

# Horticultural Department.

CONDUCTED BY P. BARRY.

## MANAGEMENT OF ORCHARDS.

The management of orchards is a matter of no trivial importance to this country at the present time. Thousands of acres of the best land are planted with fruit trees, and a large amount of capital has been expended in their purchase and planting, and whether this land has been rightly appropriated, and this money judiciously expended, depends entirely upon future management. Many people have embarked in this as in other pursuits, with spirit and enthusiasm. They prepare their ground, plant their trees, take good care of them probably for a year or two, until their enthusiasm begins to cool, when some new hobby is taken up, and the orchard is lost sight of, probably "seeded down," and left to take care of itself with the occasional assistance of cattle, sheep, or hogs, that may be turned in to pasture among them. Thus "seeded down," and cropped, and bruised, and barked by animals, starved for the want of suitable and sufficient nutriment, the trees become stunted, mossy, covered with insects, and, in short, a nuisance.

This is the actual history of many an orchard we know of this day, and thousands and tens of thousands of dollars have been lost to hard-working, economical farmers, and to the country, by this very system, if we may so call it. Gardens are managed not unfrequently in the same way. A great many impulsive sort of people rush into fruit culture and gardening this season with all the enthusiasm of devotees—one would suppose, to hear them talk, that gardening would occupy their attention largely to the end of their lives; but next season we will find them with not a thought of gardening, all the improvements and expenditures of last year neglected and lost. Need we caution people against such folly? We fear we need, and yet every year we can see a greater degree of prudence manifested in the matter—plans better matured and having more the appearance of reality and permanence. These spasmodic efforts will gradually disappear as people become better informed and enter upon improvements with more correct views and prospects.

But to return to orchards, to which we propose to confine our present remarks We must beg of cultivators not to entertain for a single moment the ruinous practice of "seeding down." If you think you cannot afford it, or that it will not pay to give your orchards good clean culture until they have at least attained a full bearing condition, dig them up and burn them, and convert your land at once and completely into corn fields or pastures, as it may seem fit. You may rely upon it, that you cannot have a more unprofitable or discreditable piece of property than a starved, neglected fruit tree. How is it possible that a young tree can thrive in a pasture or tough sod? The young roots near the surface of the ground that are really the most important as furnishing the better portion of the food of the tree, are robbed by the grass and weeds, and die out, leaving the tree to find its entire support through the deep roots that are bedded in the poor, cold subsoil. In such a situation, a tree immediately looses its vigor. It begins to look feeble, old and knarly, fungi and insects take possession of it, and there it ends.

It is surprizing to people who have not observed very closely the results of various modes of culture upon trees, how soon young trees show the influence of plants growing around or near their roots. A few years ago, in an economical mood, we sowed carrots between some rows of young apple trees. The rows were 3½ feet apart, and we sowed

only one row of carrots in the space—the ground, too, was kept clean all summer, and yet we lost the season's growth of the trees, and got a poor crop of carrots. Other trees of the same age, in the same soil, *without* carrots, were twice as large in the autumn. That ended our carrot culture among trees. When an orchard is cropped, the greatest care should be taken to give the tree ample room. If the nutriment be drained from around the roots by the rapid growth of annual crops, or if the tops be excluded from the free circulation of the air and exposed to the sun, the result will be a feeble, sickly growth.

A multitude of planters do not seem to appreciate the value of a tree. We know men who raise fine field crops, who would, indeed, be ashamed of a poor one, and who would no more be seen riding behind a lean, long haired, filthy horse, than they would be caught picking pockets, and yet their trees are as disgraceful to them as the leanest horse would be. A tree is a living body, requiring food and care as much as an animal, and even more, for it has not the advantage of locomotion. It is confined to a narrow spot, and if its food is not found, then it cannot seek it elsewhere, and it must perish. We have at hand a very sensible communication touching this subject, which we append to these remarks, and we beg the special attention of tree planters to its contents:

"Permit me to say a few words upon a subject in relation to which farmers, in general, seem to be either strangely careless or willfully ignorant and blind: I allude to the very common practice of "*seeding down*" orchards to clover.

My attention was first called to this subject by an experienced farmer and orchardist, some twenty years since, while examining the defects of my own orchard, on a farm then recently purchased in Genesee county. The orchard, though young and grafted, was at the time exhibiting strong symptoms of decay. The trees had been "set out" some eight or ten years previously, on a strong loamy soil—had been manured some two or three times from the barnyard, and by the process of grafting *after* setting had been pretty well trimmed; yet the trunks and limbs of the trees had nearly all become very rough and scabby, and nearly encased in a covering of "tree lice;" the leaves were small and yellow, and constantly falling during all the summer, and there were scarcely apples enough even at that time grown, to furnish a sample to each tree; and all that were grown, were much under size, knotty and scabby, and quite deficient in flavor.

On inquiring the cause, I was told by my friend, that beyond a doubt, all these defects had been the result of "seeding" the orchard down to clover, which had been done by my predecessor some few years previous; the roots of the clover plants striking deep into the earth, having deprived the trees of that nutriment which they required to promote a healthy and vigorous growth.

The "remedy" prescribed was, to plow the ground thoroughly, though not deep, manure and till the soil constantly, and under the tops and spreading branches to throw a *liberal dressing* every year or two of leached ashes, lime and chips, or dooryard manure—then scraping and scouring the trunks and branches as far as practicable, and washing with a strong lye of wood ashes, and then adding a good coat of whitewash, composed of lime and wood ashes, laid on either with brush or broom, or by any other convenient method.

This process then, and subsequently practiced in many other cases under my own personal direction and observation, produced a result entirely satisfactory and highly gratifying—restoring the trees to a healthy, vigorous growth, full, and, generally, to *uniform bearing* of perfect fruit; and my most sanguine desires in relation to this subject will have been fully gratified if those, or a portion only, possessing fruit orchards, will but put this theory to a practical test by but *one* well conducted experiment.

Did time and space permit, while upon this subject, I would gladly call the attention of every man possessing energy and enterprise to set out a single fruit tree, to the importance of a *liberal use of lime* as a manure or stimulant, when applied directly to the roots of *most kinds* of the apple (near, though not in immediate contact with the body—say two feet distant,) and well worked into the soil, either by the hoe or *light* plowing, thereby producing not only larger and much more perfect fruit, but in many instances, (contrary to the apparently natural habits of the variety,) inducing uniform annual bearing.

A renewal of the dressing of lime once in four to six years, and from four to eight quarts of lime to each tree, will probably be found sufficient in most cases, especially on light and warm soils. A HOOSIER."

---

A PRACTICAL TREATISE ON THE CULTURE AND TREATMENT OF THE GRAPE VINE. By J. FISK ALLEN.

The third edition of this work, enlarged and revised, has just been issued by C. M. SAXTON, of New York, the well known, enterprising agricultural book publisher. It is a useful and much needed book, and especially at this time, when Grape culture is attracting so much

attention and inquiry. Mr. ALLEN is a practical and eminently successful Grape grower himself, and therefore well fitted to prepare a work on the subject on which people may rely with safety. The construction of graperies, the preparation of borders, the propagation and management of vines at all seasons and under all circumstances, the selection of varieties, and the treatment of diseases, are all discussed with great care and minuteness. We are given not only the experience of the author, but of the most successful growers of Grapes both at home and abroad. If the book be at all faulty, it is in its profuseness of extracts; but these are subjects on which we cannot know too much.

This edition does not differ materially from the previous one, except in its appearance, which we regret to say is not so good. The new matter consists principally of a chapter on the Culture of the Grape in Florida, by Hon. A. G. SEMMES; a chapter from Dr. UNDERHILL, on the Vineyard Culture of the Isabella; and notices of some new varieties of Grapes, the most important of which are some hybrids produced by Mr. AMOS W. STETSON, of East Braintree, Mass., and our correspondent, Dr. W. W. VALK, of Flushing, L. I. We observe, too, that some alterations are made in the special lists of varieties, and especially that for a retarding house. This difference will be seen by comparing the following lists:

SECOND EDITION.

5 Vines Black Hamburg, including Wilmot's new Black Hamburg.
2 Muscat of Alexandria.
2 Zinfindal.
5 Black Lombardy.
2 Charlesworth Tokey.
3 Wortley Hall Seedling.
2 Portien Noir.
3 Tottenham Park Muscat.
1 Syrian.
1 Red Chasselas.
1 Black Prince.
5 Old St. Peters.
1 Black Frontignan.
1 Common Hall Muscat.
1 Bordelairs.
1 Escholata Muscat.
1 White Nice.
1 Red Lombardy.
1 Queen of Nice.
1 Josling's St. Albans.*

THIRD EDITION.

6 Vines Black Hamburg, including New Black Hamburg, Victoria Black, and No. 16 Black Hamburg.
2 Muscat of Alexandria.
1 Zinfindal.
5 Black Lombardy.
3 Wortley Hall Seedling.
3 Portien Noir.
1 Tottenham Park.
3 Syrian.
1 Black Damascus.
1 Black Prince.
1 Old Black St. Peters.
1 Common Hall Muscat.
1 White Hamburg.
1 Escholata Muscat.
1 White Nice.
1 Red Lombardy.
1 Queen of Nice.
1 Bowker.
1 Bishop.
1 Black Portugal, or Farrar.
1 Prince Albert.

---

THE COLD GRAPERY: From direct American Practice. Being a Concise and Direct Treatise on the Cultivation of the Exotic Grape Vine under Glass, without Artificial Heat. By WILLIAM CHORLTON, Gardener to J. C. GREEN, Esq., Staten Island, N. Y.

In another place we notice the issue of a new edition of *Allen's Treatise on the Grape*, and here we have another touching the same subject. Mr. CHORLTON'S, however, differs from Mr. ALLEN'S in this, that instead of treating of Grape Culture in general, it is devoted exclusively to the *Cold Grapery*. He makes this a "speciality," and what he has written is based upon his own very successful practice. The whole subject—construction of houses, preparation of borders, planting, selection of varieties, pruning, training, &c.—is treated in a plain, simple manner, giving a great amount of information at a small expense both of money and reading. We commend the perusal of this treatise to all who desire information on this subject.

---

MR. BARRY: At the last exhibition of fruit by the Genesee Valley Horticultural Society, I witnessed a most barefaced imposition. There was a display of apples made by certain individuals who have not an apple tree bearing fruit on their premises. Now, if I understand plain English, I read in the rules and regulations, "All articles entered for competition must be grown by the competitor, and bear his own name." The above has happened more than once, and passed unnoticed. A FRUIT GROWER.—*Rochester, N. Y.*

[It is very true what our correspondent "Fruit Grower" says. The rule alluded to does exist, and is a very proper and necessary one. We hope, hereafter, when persons exhibit fruits *not* of their own growth, they will so designate them. The fruit committee must look to it.—ED.]

* This proves synonymous with *Chasselas Musquie.*

# Editor's Table.

LIEBIG'S COMPLETE WORKS ON CHEMISTRY. Published by T. B. PETERSON: Philadelphia.

The complete works of the great LIEBIG!—What a treasure! A library of chemistry in themselves! Every intelligent farmer's son must desire to possess them. Here they are, then, bound neatly in one volune for $1,50.

There is, however, in the publication of this volume a species of charlatanry that we feel bound to mention. They profess to be "from the last London edition," much improved," and in carrying out this idea the publisher has seen fit to alter the dates of the author's introduction and the English editor's preface. Thus the introduction to "Chemistry in its application to Physiology and Pathology" is dated Giessen, Sept. 1, 1852, and the preface is dated Primrose, Nov. 22, 1852. They are both precisely the same as those dated in the old editions, Giessen, Sept. 1, 1840, and Primrose, Nov. 22, 1841. And so it is in all the other works, the month and the day of the month are the same as in the old stereotyped editions, but the year is changed in every case to 1852.

The familiar letters are dated August, 1852. On examining them, we found that they were the old celebrated sixteen letters, published some ten years ago. The last edition of these letters, published in Londen in 1851, contains nine additional letters, with many other alterations, corrections, &c., embodying "the results of LIEBIG's researches during the last few years in agricultural and physiological chemistry."

THE PROGRESSIVE FARMER. By J. A. NASH, Principal of Mount Pleasant Institute, Instructor of Agriculture in Amherst College, &c. Published by C. M. SAXTON: New York: 1853.

A scientific treatise on agricultural chemistry, the geology of agriculture, on plants, animals, manures, and soils, applied to practical agriculture, of 254 pages, cannot be expected to go very profoundly into each subject. Such a work, however, might give us some of the most important facts in each of the series, and their relation to practical agriculture. The author of the *Progressive Farmer* has attempted the task, and so far as we can judge from a brief examination, he has happily succeeded.

One feature of the work is eminently characteristic of this book-making age—it contains little, if anything, that is *new*. It embodies no new facts, nor details the results of recent experiments: yet it contains much that is new to the great mass of agriculturists, and which it would be to their interest to know. For this reason we wish the *Progressive Farmer* an extensive circulation, feeling assured that he will do much good, even though he should teach a little that is doubtful in science and heteradox in practice.

PRINCIPLES OF BOTANY, as Exemplified in the Cryptogamia. By HARLAND COULTAS.

The subject of this little manual is well indicated by its title, and the author we think has successfully illustrated the laws of vegetable growth and reproduction, by tracing these phenomena in the lowest orders of the vegetable kingdom. Published by LINDSAY & BLAKISTON Philadelphia. For sale by D. M. DEWEY, Rochester, N. Y.

THE NEW YORK STATE FAIR will be held at Saratoga Springs September 20, 21, 22 and 23, 1853. We are indebted to the Secretary, B. P. JOHNSON, Esq., for a list of premiums, regulations, &c. One of the requirements from poultry exhibitors we donot fully understand:

"The lot of poultry from which that on exhibition is taken, must consist of not less than one hundred."

Is it intended that each competitor for the premium on Dorking, Spanish, Shanghæ, Bantams, &c., &c., must have at home a lot of not less than one hundred of each particular breed from which the lot was taken? Or does it mean that the *aggregate* number of all the different breeds together must be at least one hundred? Or can a gentleman, having but one rooster and two hens of the improved breeds, receive a premium for them if he has one hundred of the *common* breed at home?

COL. SHERWOOD'S SALE of Short-horned cattle, &c., will take place at Auburn, N. Y., on the 8th of June next. See advertisement, which was accidentally omitted in our April number. Mr. SHERWOOD's farm is about one mile from the railway station. The sale will commence at 10 o'clock A. M.

THE NEW YORK "WORLD'S FAIR."—We understand that the Agricultural Department of this Fair is to be under the supervision of B. P. JOHNSON, Esq., of Albany, and that the Mechanical Department is to be entrusted to Mr. JOSEPH E. HOLMES, of South Hadley, Mass.

Flower Seeds.—Our imported flower seed has only just arrived, having made an extraordinary long passage. We were, therefore, unable to send out our packages as early as we desired. All applicants will receive them within a few days after the receipt of this number. We shall resume our articles on annuals and their cultivation, in our next.

Length of Clover Roots.—Caleb K. Hobbie, Esq., of Irondequoit, N. Y., has just shown us a root of red clover (probably of the small variety,) that was 5 feet 10 inches long. It was taken from a sandy loam, and grew perpendicularly in the ground. Friend Hobbie objects to the assertion in our article on the management of sandy soils in March number, "But the time will come, and that soon, on *sandy soils*, when good crops of clover can no longer be grown." He thinks that by using plaster we shall always be able to raise good crops of clover. Mr. H. is a very intelligent, observing farmer, and it would give us much pleasure to receive an article on this subject from his pen.

Mules and Jacks.—Mr. Wm. D. Osburn, of Port Byron, N. Y., and his neighbors, wish to purchase eight or ten teams of mules, and also a first rate jack. They desire to learn the price of this kind of stock. Any readers in Ohio, Kentucky, or Tennessee, who deal in mules, will be likely to find Mr. O. a good customer, and can address him on the subject.

Thomas Griffith, West Newton, Allen Co., Ohio, writes us that a *good wagon maker* could not fail to make himself wealthy, at West Newton, in a few years.

Assafœtida a Preventive of the Striped Yellow Bug.—For the benefit of your numerous readers, I say put a piece of Assafœtida about the size of a pea in each hill of cucumbers, and they will not be troubled with the Striped Yellow Bug. So says one who has tried it effectually. L.—*Logansport.*

Back Volumes.—Owing to the great demand for back volumes, we have run completely out. We are, however, having deficient numbers reprinted, and shall soon have them bound. Many of our friends who have remitted the money for them are doubtless anxious to get them. We trust to exercise their patience but a short time longer. The postage on the bound volumes, pre-paid, is 20 cents; not pre-paid, 40 cents.

## Inquiries and Answers.

Sheep Eating Wool.—A subscriber wishes to know the reason why some Merino sheep pull out their wool with their teeth. The irritation of ticks, or any cutaneous affection, may cause sheep to bite and pull their wool; and from sheep habit, they sometimes pull the wool from each other; or they act from the impulse that impels neat cattle to lick one another. Whatever will cure the scab and destroy insects, will be likely to prevent the evil. Feed your sheep pounded roll brimstone, or sulphur, with their salt, and it will drive off all ticks and lice, and probably cure the malady.

(Richard McCurdy.) We know of no thorough bred Leicester or Byfield hogs in this neighborhood. You forgot to give your place of residence.

(D. S. Umberhouse.) It is not necessary to soak Osage Orange seed all winter previous to planting.

In some situations Lucerne would be more profitable than Timothy. It could not, however, be substituted for Timothy on arated farms, as it does not attain its full growth till the third year.

Clover, and the natural meadow grasses, are often cut three times for hay in England, especially when irrigated. We see no reason why you could not obtain as large a produce under similar circumstances.

(Stephen Landon, Eden Center, N. Y.) The weight of the *Farmer* necessarily varies considerably. Sometimes it weighs over one and a half ounces, yet the *average weight*, when dried, is not one and a half ounces, so that the postage in New York State should be only three cents per annum; and to any part of the United States, six cents per annum.

(E. T., Jr., Wilmington, Del.) Palmer & Williams' Self-Raking Reaper is manufactured by J. Ganson & Co., Brockport, N. Y.

Mr. T. J. F., of Tecumseh, Mich., is informed that Dr. Lee is no longer the Corresponding Secretary of the U. S. Agricultural Society, and that none other than the first number of its journal has, to his knowledge, been published. Dr. L. labored two years and wrote more than 800 letters with his own pen in favor of a truly national organization for the promotion of agriculture, before the Society in question was established. But no sooner had he issued the first number of the journal than a successful combination was formed to take it out of his hands and supervision. Had our judgment been consulted in the matter, every number of the contemplated work would have been promptly and regularly issued, as new

type was purchased expressly to print it, (and purchased *not* at the expense of the Society,) and an arrangement was also made to stereotype each number of the journal and print it, for which the Society has abundant means. What direction its affairs will take hereafter we know not.

OIL CAKE.—Does the manner of preparing linseed for fattening cattle, as given in the March number of the *Farmer*, apply to the oil cake or meal, as well as to the seed. How should the meal be prepared for feeding young calves, and what should be their daily allowance? E. W. W.—*Huron, Ohio.*

In feeding oil cake to sheep it should not be ground fine, but merely broken in half inch lumps, as sheep like something hard to nibble, and oftentimes will not eat the meal. One pound per day is a liberal allowance for fattening sheep; for fattening cattle it is often only roughly broken, as recommended for sheep, but it is preferable to reduce it to a fine meal and mix it with cut hay or straw moistened so that it will adhere to it. Four pounds per day with cut hay, or seven to nine pounds with cut corn-stalks or straw, is a good allowance.

We have often used oil cake for *rearing calves*, with advantage, but do not recollect the quantity given per day. The oil cake meal should be gently boiled in water till it will gelatinise on cooling. A little of the jelly should be added to the warm skim milk fed to the calves. A quantity of jelly corresponding to about three ounces of meal, and increased with the age of the calf, we should think would be sufficient per diem.

LEAD PIPE—PLASTER IN WINTER.—I contemplate conducting water from a well about ten feet in depth about fifteen rods, in order to have a permanent supply in my barn-yard. There is sufficient descent, though quite gradual, and I am somewhat at a loss to decide what pipe to use. My preference would be to use lead pipe laid in syphon form, and thus save the labor of digging a ditch; but have some misgivings on account of a want of any definite knowledge on the subject. I solicit information, through the columns of your excellent journal, whether, for practical permanent purposes, I shall use half inch lead pipe (as larger is quite expensive) in syphon form, or sink the ditch to about the depth of the well and use cement pipe or pump logs.

Would we get the same benefit from our plaster if we should strew it upon the land in winter as we do if sown in the spring? S. COFFIN.—*Nunda, N. Y.*

If the supply of water from the well is certain to equal all that can run in the lead pipe in the dryest times, the syphon plan is safe and cheapest; but if the pipe should draw air instead of water, (as it would when the well failed to meet the demand upon it,) the apparatus would be worthless for the time being. It might be charged anew and made to operate so long as there was no lack of water. The volume of the stream that runs into the well or spring should a little exceed that to be delivered by the pipe.

It is a little better to sow plaster as the grass begins to grow, than at an earlier period, because a fraction of it will often be washed into ditches, or rills, or dissolved in surface water, if applied in the winter on snow.

PEA STRAW.—Many of your readers in this vicinity are anxious to hear from you again respecting the utility of pea straw as a feed for cattle. They are not satisfied that it can contain so much nourisdment as set forth in the September number, I think. M. CAMPBELL.—*Kirkwall, C. W.*

On reference to our article on "Peas, and Pork making," in September number, we could find nothing in reference to pea straw, and do not recollect having written anything about its nutritious qualities. We would here say, however, that pea straw contains more nutritious matter than either wheat or oat straw. The reason it is so seldom turned to good use in feeding cattle is, that it is somewhat difficult to cure properly. It is usually full of dust and mouldy, and is so shattered in threshing that cattle will scarcely eat it. Nevertheless, if properly cured, pea straw makes first rate fodder.

APPLYING MANURE.—I have a meadow somewhat worn with plowing which I want to manure. Would it be best to put the manure on green this spring, or let it rot in the heap until fall? The manure is the droppings of eight cows, twelve sheep, one horse, and forty-five hens, mixed promiscuously. The meadow is a dry gravelly loam. MARCELLUS PALMER.—*Centreville, N. Y.*

We should prefer to apply it *very early* in the spring to any other time. We should prefer the *fall* rather than late in the spring, with the risk of dry weather setting in.

MILK OF NATIVE AND OTHER BREEDS OF CATTLE, &c.—Will you, or some of your numerous correspondents, state what is the average quantity of milk our native cows give in a year, say five, ten, fifteen or twenty; also, the Short-horn Durham, or any other breed of cows. A great many people believe that the native cows, on an average, give as much milk as the Short-horns.

Also, which produces the most butter and cheese from the same quantity of milk?

What kind of hay is the best for milch cows in the winter, Clover, Timothy, or Red Top?

As the season is approaching for farmers to lay up their hay for winter, this last question I wish you would answer, if neither of the others. J. G. FANNING.—*Eaton, Ohio.*

Will our correspondents favor us with their views on these subjects?

SWAMP LAND.—As I have been a subscriber to the *Genesee Farmer* for many years, I, for the first time, write you in answer to J. K. TAYLOR'S inquiry in the April number, respecting swamp lands. I have had some experience, I think, with the same kind of soil he mentions. If he has got sterile soil near by, and $1,000 to expend, after draining, to lay out in hauling the swamp to the sterile soil, and the sterile soil to the swamp, he can make good land of both. I have hauled it on the garden and found beneficial results, and made some satisfactory experiments that it cannot be made good farming land. A good crop is very uncertain after the first. If you could succeed in burning the soil over every year, you

might grow winter rye, buckwheat and oats. I have also seen a good growth of straw but no oats; wheat a total failure; also difficult to seed with grass, and, if obtained, only good for one year. Plow and sow one season, and the next burn over, is a part of my experience. S. Y.—*Essex Co., N. Y.*

---

Mustard Seed.—I am anxious to know how I shall go to work to raise Mustard Seed for table use—the common brown—as I think it a profitable crop to engage in, especially when it will command $4.00 per bushel. I know nothing about raising it, whether to sow in the spring or fall, to scatter broadcast or plant in rows. I wish to know how much seed I want per acre, and what kind of soil is best adapted for its cultivation? I have plenty of clay and muck land. David Leck.—*Plattsburgh, Clin. Co., N. Y.*

---

## HORTICULTURAL.

(R. T., Taylor, Ill.) Osage Orange Hedges.—Soak the seed twenty-four hours in warm water. Sow like peas, but thicker, in light, loamy soil. At the end of the first year the plants will be eight to twelve inches high, and may be planted in hedge rows. Have the soil well prepared and plant a double row, or two rows a foot apart, and the plants six inches apart in the rows, the plants in one row being opposite the spaces in the other. Keep the ground clean and mellow for the first two or three years, and shear the hedge twice a year to make it thick at the bottom.

(D. A., Oneco, Ill.) Quince Stocks.—You can procure them at any of the nurseries here. A small parcel can best be sent by express.

(P. B., Sennett.) Osage Orange and Buckthorn seeds should be sowed immediately; any time in the month of May will do. Soak a day in warm water before planting. The Osage Orange in particular needs this.

(Mrs. F. B., Canandaigua.) You can get the *Rose-colored Weigelia* at the nurseries here. Price three or four shillings each.

The Mallow can soon be eradicated. Hoe and destroy as fast as they appear, and if in a place where no crop is growing, sprinkle freely with salt or brine.

(C. B., Rochester, Ia.) We are much obliged for the information respecting the *Benoni Rose* pear. Will be glad to see the fruit, if to be had this coming season.

(J. H. A.) The *Northern Spy* will no doubt succeed well grafted on seedlings six or eight feet high, if this mode be necessary. Here we prefer low working.

C. J. M., Frankfort, Ia., wishes to know the most effectual mode of guarding against rabbits in orchards. We have heard of a wash made of milk and soot, put on the tree two feet or so from the ground, being effectual; but a little thorny brush tied on answers a good purpose. We should prefer it to "straw bandages."

(A Subscriber.) We would not advise the use of plum suckers for stocks, and especially if in any degree affected with the black knot. This disease seems to pervade the whole system.

Bending Branches to produce Fruitfulness.—Do it at any time. A branch must be bent during all of one growing season to make it become fruitful. It is not safe to bend lower branches much to form pyramids, as it weakens them.

Fire Blight.—We can not say that pears on quince are less liable to it than standards. We know of no reason why it should be so.

---

Where I cut grafts from my young trees in the orchard, in March last, and then trimmed them smooth to the body, the sap oozed out all summer causing the bark of the trees to all turn black. Can you tell me the cause of it? I had laid it to trimming too smooth at the wrong season; but I noticed in the last number of the *Farmer's Companion*, that they recommended pruning this month and paring smooth. My short experience proves that smooth pruning in this month, is injurious. Please give your views in the next number of the *Genesee Farmer*. Wm. J. B.—*Grand Rapids, Mich.*

We have never observed anything of the kind. It might occur from pruning, in the case of stone fruits. These should not be pruned at the moment when the buds are swelling, but rather earlier, or later, when the leaves have expanded.

---

Apple Trees injured in Winter.—I will reply in a word to J. A. N., Mercer Co., Pa., page 37. My young trees last winter, and especially in the nursery rows, where I did not take the precaution to remove the cause, suffered much in the same way. I think it is caused by snow falling, then rain, and then a severe freeze, which necessarily contracts the bark of the young trees; then there being so much weight accumulated on the surface that the snow below settles, and as it settles the ice around the tree sometimes produces a rupture upon the surface of the bark. I took the trouble last winter to break the crust in some parts of my nursery with good effect. A light coat of grafting wax applied in season to the wound is of great service to keep the tree from drying up till the sap begins to circulate; but if you had no crust, or if your trees are large and old, it is probably the result of some other cause. J. D. C.—*Locke, N. Y.*

---

Osage Orange.—I have of late seen some inquires made about Osage Orange, as to its hardiness and growth in our climate, in reference to its being used for hedges. I will give you my experience in as few words as may be.

In the spring of 1849 I planted a small lot of the seed, and being rather "green" in the matter, but very few of them come up; those that did, grew about twelve inches; and in the fall, lest they should be injured by the frost, I covered the roots with dry leaves, covering them slightly

with earth to prevent them from being blown about by the wind. The next season they grew *four feet*, (the young wood died down to where it was covered). The next that I planted I soaked in warm water nine days; I then mixed them with a small quantity of *rich* earth, and kept them in a moderately warm and shady place until about the 20th of May, and almost every seed came up. In the fall I did *not* cover them up, and the next season they grew only about *two feet*—only half as much as those that were protected the season previous, though planted on the same ground as those of the year before. Those that were two years old were not injured at all by the frost, though exposed to the hardest winter we have had in fifteen years. There is no need of protecting them, though I thing a good hedge can be obtained sooner with than without it. I have one planted, a mixture of Orange and Honey Locust, which, when in full leaf, is beautiful, and will be proof against any thing that has not wings. It does the best on high ground, though it will grow on any ground. ISAAC H. CLOCK.—*Darien Depot, Fairfield county, Conn.*


### Hong Kongs!

**THE** subscriber offers for sale the present season, Eggs of the famous Hong Kong Fowl. Address, post-paid,

SAM'L McINTOSH.

April, 1853. Canoga, Seneca Co., N. Y.

### Eggs for Hatching.

**THE** subscriber offers for sale during the coming season, Brahma Pootra, Shanghae, and Black Spanish eggs for hatching, from as good stock as can be found in America.

THOMAS WRIGHT.

[4-2t] Utica, N. Y.

### Cochin China Eggs for Sale.

**THE** subscriber has the best collection of Cochin China fowls in the State, and, perhaps, in the country—so stated by those who have seen them. They obtained the first premium at the Monroe County Agricultural Fair last fall. My stock was obtained from J. VICK, JR., one of the editors of the *Farmer*, and are pure and exceedingly fine.

I will sell eggs from these fowls, nicely packed, and forward by express, or in any way directed, for $4 per dozen.

MILES DECKER,

April, 1853. Rochester, N. Y.

### Superphosphate of Lime,

**IN BAGS** and Barrels, made by C. B. DE BURG, with full directions for use,—warranted a pure and genuine article—for sale by GEO. DAVENPORT,

No. 5 Commercial, corner of Chatham street, Boston, Agent for the manufacturer.

Also, for sale, Ground Bone, Bone Dust, Burnt Bone, Guano, and Grass Seeds, of reliable quality. [4-tf]

### Corn! Corn!!

**SIXTY** distinct varieties, including all the kinds exhibited at the last Fair of the American Institute, with names, time of ripening, mode of culture, &c., &c.; 8 kernels of each, making 480 kernels, will be sent to any part on the receipt of One Dollar. Apply to WM. WEEDON,

A. Smith's Seed Store, No. 388 Broadway, New York.

May 1, 1853.—1t*

### Manures!

| | |
|---|---|
| Superphosphate of Lime, (Deburgh's), | 2¼ to 2½ cts. per lb. |
| Peruvian Guano, | 2¼ to 2½ " " |
| Bone Dust, Sawings, or Meal, | $2.50 per bbl. |
| Turnings, and Fine Crushed, | 2.25 " |
| Potash, | 3¼ to 4 cts. per lb. |
| Charcoal, pulverized, | $1 per bbl. |
| Sulphuric Acid, | 2¼ to 2½ cts. per lb. |
| Plaster of Paris, | $1 to 1.25 per bbl. |

For sale at the State Agricultural Warehouse,

LONGETT & GRIFFING,

[4-2t] No. 25 Cliff street, New York.

### Clarke's Excelsior Churn!

**IS**, beyond all question, the best Churn for large dairies. The two favorite sizes are $7 and $10 each. The latter size is suitable for from ten to thirty cows—indeed, for any large dairy, as 100 lbs. of first rate butter can be produced in it at three churnings, in less than one hour.

*Every Churn sent out is warranted to please.*

This new and saleable Churn presents great inducements to capitalists and manufacturing companies to purchase State and County rights.

For full description, recommendations, &c., apply, at any time, to GEO. B. CLARKE, Patentee,

[5-*1] Leonardsville, Madison Co., N. Y.

### Garden and Field Seeds,

**FROM** the new establishment of VANZANDT & BOWDISH, No. 114 State street, Rochester, N. Y., can be purchased of the merchants generally throughout the country, in papers or packages, on reasonable terms. Also, at the Agricultural Warehouse of E. D. HALLOCK, No. 24 Exchange street, Rochester, N. Y.

The Seeds from this establishment can be relied on as being of the best quality. They are mostly imported, or grown for us by the *Eastern Shakers*, and are warranted good and true. Full directions for cultivation printed on each paper and package.

VANZANDT & BOWDISH.

Rochester, May 1, 1853.

### Sale of Short Horned Cattle.

**I WILL** sell by Auction, at my residence, on Wednesday, 8th June next, at 1 o'clock, P. M., about Thirty Thorough Bred Short Horned Cattle. About twenty of them are Cows and Heifers, the remainder young Bulls. Nearly every animal is the produce of the imported Bull "YORKSHIREMAN" and 3d "DUKE OF CAMBRIDGE," bred by the late Thomas Bates, Esq., of Kirkleavington, England, and "EARL OF SEAHAM" and "VANE TEMPEST," bred by John Stephenson, Esq., of Durham, England, and are of his famous Princess family.

The upset prices of these animals will be from $150 to $300, as to age, &c., &c.

I will also offer the above named imported Bull, "Vane Tempest:" his upset price is $1000.

TERMS.—Cash, or satisfactory notes at three months, payable at the Bank of Auburn, with interest.

I will also offer for sale at that time a few South Down Lambs and Suffolk Pigs.

Catalogues are now ready, and may be found with

A. B. Allen, Esq., 89 Water-street, New York.
Sanford Howard, Esq., Cultivator office, Boston.
Luther Tucker, Esq., and B. P. Johnson, Esq., } Albany.
L. F. Allen, Esq., Black Rock.
M. B. Bateham, Esq., Columbus, Ohio.
W. T. Dennis, Esq., Richmond, Indiana, and with the subscriber, J. M. SHERWOOD.

Auburn, N. Y., May, 1853—1t.

### Employment for Young Men.—Book Agency.

**D. M. DEWEY**, Arcade Hall, Rochester, has, during the past nine years, employed several hundred young men in the sale of books, and is now more extensively than ever engaged in the sale of good and valuable books by traveling agents. The following are a few of the books now offered:

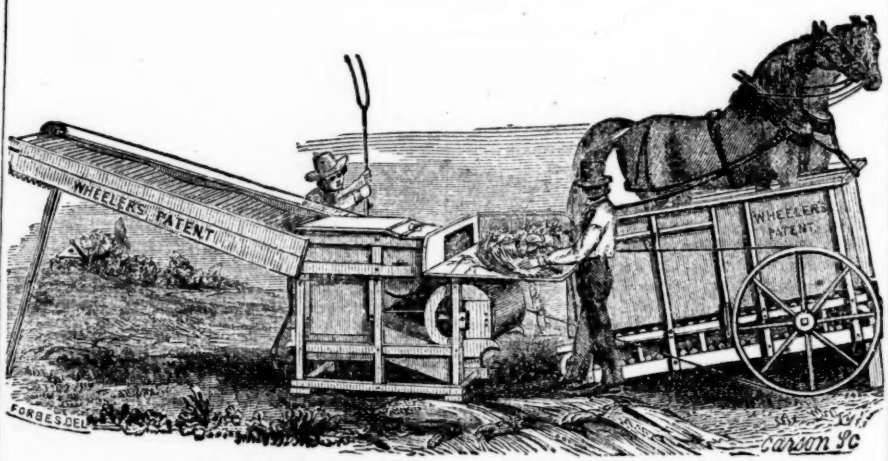
| | |
|---|---|
| Uncle Tom's Cabin, in paper, retail, | 38 |
| Sequel to Uncle Tom's Cabin, in paper, retail, | 25 |
| Key to Uncle Tom's Cabin, " " | 50 |
| Youatt on the Horse, the best work on the Horse, | $1 50 |
| Barry's Fruit Garden, the best work on Fruits, | 1 25 |
| Life of the Empress Josephine, by Headley, | 1 25 |
| Dick Wilson, a new Temperance work, | 1 25 |
| The Australian Captain, a book of facts, | 1 25 |
| Chemical Field Lectures—Agriculture, | 75 |

Bibles, New Travels, Histories, Biographies, Agricultural Books, Novels, Pamphlets, &c., &c., all of which are put to agents at the lowest cash prices—and agents are indemnified against loss. A small cash capital of from $15 to $30 will be required, and the agent can earn from $1 to $5 a day, depending upon his adaptation to the business.

N. B.—Orders for any Book wanted, with the price of the book enclosed, will be promptly answered by mail, and the book sent free of postage.

Subscriptions received for all American and Foreign Periodicals. Address D. M. DEWEY.

May, 1853. Arcade Hall, Rochester, N. Y.




## NEW YORK STATE AGRICULTURAL WORKS,

*BY WHEELER, MELICK & CO., ALBANY., N. Y.*

IN presenting our annual business card to the Farming Public, we take the occasion to express our thanks to former customers for an increased patronage, which has made a further extension of our manufacturing facilities necessary.

We are making, for the trade of 1853, a much larger number of all articles in our line than we have in any previous year, and have made several improvements, which will raise them still higher in the public estimation.

As the limits of an advertisement will not admit of an explanation of all the advantages of our Machines, and as most of them are so well known as to need no commendation, we will make this statement brief, and for more detailed information we refer to our printed Catalogue, which will be sent by mail, *postage free*, when requested.

As we give our entire attention to the improving and manufacturing of Horse Powers, Threshing Machines, and a few other articles, we feel warranted in assuring the public that they will find each of the following Machines unsurpassed.

### WHEELER'S PATENT RAIL WAY CHAIN HORSE POWERS.

These Powers (represented in the above cut,) are unrivalled for driving all kinds of Farmers', Planters' and other Machinery, which admits of being driven by Horse Power. They are made for either one or two horses, and their superior merits, in point of durability, strength and ease of running, are fully established; while their compactness and simplicity, lightness, and greater length and width of Treading Floor and Stall, give them advantages over other Powers, which are highly appreciated by those who have tried them. *Several thousands* of them are in use, some of which (made 12 years ago,) have threshed over 100,000 bushels, and though our present Powers are much improved over the old ones of the same kind, yet the latter are still good. About 950 of them were sold by us and our agents, the past season, (a larger number than in any previous year,) thus proving their increasing popularity.

### WEELER'S PATENT COMBINED THRESHER AND WINNNOWER.

This Machine (also represented in the cut,) is a new invention. It was got out two years ago, after a long series of experiments resulting in a machine which performs the *three operations of Threshing, Separating and Winnowing*, with as much dispatch, and as few hands and horses as are required to thresh and separate only, with other machines, and although designed for so complicated work, it is a model of simplicity and compactness. The entire running parts are driven by the main belts, and one small band. We have no doubt it is the most perfect machine in use for Threshing and Winnowing. Driven by two horses, they thresh and clean from 150 to 200 bushels of wheat, or twice that quantity of oats per day. We give below letters from gentlemen, who have the machines in use, showing the estimation in which they are held, premising that these two are about an average of over 100 similar letters, which we can show.

*Letter from E. Swarthout, Esq., dated Exeter, Luzerne county, Pa., March 22d, 1853.*

Messrs. WHEELER, MELICK & Co.—Gentlemen: I am happy to say your Thresher and Winnower far exceeds my expectations—it cannot be beat in this section. I have threshed 43 bushels of wheat in 60 minutes by the watch. It was good clean wheat and short straw, and was taken to market from the machine as fast as threshed; and so it has been with most of the wheat I have threshed. All that is free from chess and cockle I can make fit for market as it comes from the machine. I have threshed 90 bushels of oats in an hour. I think, on the average, of Wheat, 25 to 30, and Oats, 60 to 70 bushels per hour. I have threshed between 5000 and 6000 bushels in all since I got the machine, which was not till the middle of December, and so late I feared the 4 horse powers and 8 horse cleaners had got all the work done, but I soon had plenty. The workmanship of the machine is the best I ever saw.

Yours, &c., E. SWARTHOUT.

*Letter from W. C. Northrup, Esq., Manlius, Onondaga county, N. Y.*

RESPECTED GENTS: Having tried your Winnower to our satisfaction, we are glad to say we like it much. We first tried it on Soules wheat, and it worked to a charm; cleaned it as well as any Fanning Mill the first time, and threshing from 20 to 25 bushels per hour. We then set up at another barn for oats, and threshed from 50 to 60 bushels per hour. Oats were good. It works to a charm in barley; threshes as fast as we can put it through the Machine, but have not tried it *per hour*. It works well in buckwheat, when dry, and in timothy. Your Machine is much liked in this place, both for threshing and *saving* grain. It takes the preference of the Eight Horse Machines.

Yours, very respectfully, W. C. NORTHRUP.

### WHEELER'S OVERSHOT THRESHER AND SEPARATOR.

This Machine is also our own invention, and has been in use 13 or 14 years, and its many advantages are appreciated by *other Manufacturers*, as well as the Farming Public. Driven by our Double Power, it threshes and separates from the straw from 150 to 200 bushels of Wheat, or twice as much Oats, per day. For the Single or One Horse Power we make a smaller Thresher and Separator, which threshes from 75 to 100 bushels of Wheat per day. The small Machine is adapted to moderate sized farms, and as the Single Power is sufficient for sawing wood, churning, cutting stalks, straw, &c., and driving almost every kind of Machine used by Farmers, and is capable, by changing horses and elevating the Power properly, of threshing much faster than we stated above, it is a very popular Machine in some sections.

☞ All our Machines are *Warranted* to give entire satisfaction, or they may be returned at the expiration of a reasonable time for trial.

PRICES:

| | |
|---|---|
| For Double, or Two Horse Power, Thresher and Separator, including belts, wrenches, oil-cans, complete, | $150 00 |
| Double Power alone, including belt, | 115 00 |
| Do. without belt, | 110 00 |
| Double Thresher and Separator, alone, | 87 50 |
| Single, or One Horse Power, Thresher and Separator, including belts, oil-cans, and wrenches complete, | 123 00 |
| Single Power, alone, including belt, | 88 00 |
| Do. without belt, | 83 00 |
| Single Thresher and Separator, alone, | 35 00 |
| Clover Hullers, | 30 00 |
| Straw and Stalk Cutters, for Horse Power, | 30 00 |
| Circular Saw Mill, with 24 inch Saw, | 35 00 |
| One Horse Power, without band wheel, | 78 00 |
| Churn Gearing, | 12 00 |
| Band Wheel, | 5 00 |
| Band for Power, | 5 00 |
| Double Power, with Combined Thresher and Winnower, including belts, wrenches, &c., | 235 00 |
| Combined Thresher and Winnower, alone, | 120 00 |

Orders are solicited, and will be promptly filled. Address, WHEELER, MELICK & CO.,
May, 1853. *Albany, N. Y.*

The Subscribers have obtained from Messrs. Wheeler Melick & Co., of Albany, the exclusive sale in Rochester and vicinity, and general agency in Western New York, of their celebrated Agricultural Machines, which we will sell at their Albany prices, adding transportation.
J. RAPALJE & Co.

## The Stowell Ever Green Sweet Corn.

A QUANTITY of this new and valuable variety, from seed raised by Professor J. J. Mapes, LL.D., for sale. Per bushel, $16; peck, $5; half peck, $3; quart, $1; sent by express or mail to any part of the country, on receipt of the money by post. This is beyond all doubt the best and most prolific kind of Sweet Corn ever grown. No farmer should be without it. With ordinary care it will repay cost a hundred times over the first season.

DIRECTIONS.—A quart of seed will plant one-tenth of an acre, four to five kernels to the hill. Prepare ground well. Cultivate like common corn. It may be planted any time before the middle of June; earlier the better.

[From the Working Farmer.]

"We have long been convinced that sweet corn would prove superior as green fodder to any other; and the only objection urged against its use has been the smaller yield per acre compared with other kinds. We are now prepared to recommend the use of Stowell's evergreen sweet corn for this purpose. The stalks are nearly as sweet as those of sugar-cane, and *double the quantity* can be grown to the acre, to that resulting from ordinary sweet corn."

Another advantage claimed for this corn by Prof. Mapes, though the subscriber does not endorse it, is, that when desired, it may be kept *green and fresh all the year round.*

[Professor Mapes, in the "Working Farmer," gives the following directions for preserving the Stowell Ever-green Sweet Corn:]

"The ears should be gathered when fully ripe, and the husk should be tied at the nose (silk end), to prevent drying, when *it will keep soft, white and plump for more than a year*, if in a dry and cool place. At the dinner of the Managers of the Fair of the American Institute, last year, we presented them with this corn of two successive years' growth, boiled, and there was no perceptible difference between the two. This year we sent to the Fair one stalk containing eight full and fair ears, and could have sent many hundred stalks of six ears each."

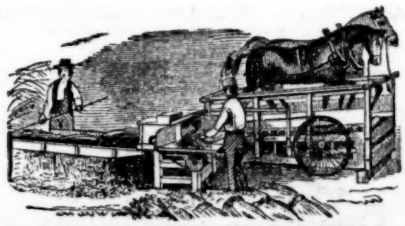
Many other recommendatory notices might be given.

All orders promptly supplied. Address, post-paid, ALFRED E. BEACH, White Plains, Westchester Co., N. Y.
May, 1853.—2t.

## Superphosphate of Lime.

OF the best quality, and various other Fertilizers, for sale at the lowest prices.

Plows, and all other Farming and Gardening Tools, and a large assortment of Field and Garden Seeds, of the best quality. R. L. ALLEN,
May, 1853—2t. 189 and 191 Water-st., New York.



## Albany Agricultural Works, Warehouse & Seedstore.

*EMERY & COMPANY, Proprietors,*

SOLE manufacturers of the celebrated PREMIUM "EMERY'S PATENT CHANGEABLE RAILROAD HORSE POWER," Threshing Machines and Separators, &c., &c., for one and two horses—designed for Farm, Plantation or Shop use. Its construction is such, that it can be applied to the driving of all kinds of machinery, without additional expense for geering, &c., &c. It will be recollected that this Power is the one which took the *first prize* at the great trial of the New York State Agricultural Society, held at Geneva in July last.

Owing to the great advance in the price of Iron, we have found it necessary to advance the prices, to enable us to manufacture a Power equally good with past seasons, rather than to use a cheaper material in their construction.

OUR PRICES WILL BE FOR THE SEASON 1853:

| | |
|---|---|
| "Emery's Patent Changeable Horse Power," Thresher, Separator, Bands, &c., for two horses, | $158 00 |
| Emery's Patent Changeable Horse Power, Thresher, Separator, Bands, &c., for one horse, | 125 00 |
| Common Rack and Pinion Power Thresher, Separator, &c., two horses, | 140 00 |
| Common Rack and Pinion Power Thresher, Separator, one horse, | 115 00 |
| Emery's Patent two horse Power alone, | 116 00 |
| " " one horse " " | 83 00 |
| Common Rack and Pinion, two horse, | 105 00 |
| " " " one horse, | 75 00 |
| Threshing Machine with Separator and fixtures, 26 inch cylinder, | 87 00 |
| 24 inch cylinder, | 35 00 |
| Sett of bands for Machine, with extras, &c. | 5 00 |
| Fanning Mills, fitted for Power, | $26, 28, 30, 32 00 |
| Portable Circular Saw Mills, with 24 inch circular saw, filed and set in running order, for wood cutting, &c., | 35 00 |
| Extra table and saw for slitting boards and fencing stuff, and general shop use, | 7 00 |
| Upright or Felloe Saw, for Wheelright's use, | 40 00 |
| Cross Cut Saw, arrangements greatly improved to attach to Power for cutting logs into any desired length, in the yard or forest, | 20 00 |
| Churn attachments to Power, for one or more churns, | 12 00 |
| Feed Mills, with iron plates, | 40 00 |
| French Burr Stone Mills, for farm or mill use, | $120 to 200 00 |
| Power Corn Sheller, | 40 to 55 00 |
| Clover Huller, from | 80 to 100 00 |

Thanking the public for their past liberal patronage, we pledge ourselves anew to them, to give them a good article at a fair price.

TERMS—Cash or approved notes or acceptances, with interest, payable within four months, in Albany, New-York, Boston, Philadelphia or Baltimore, as may best suit the purchaser.

All articles warranted made of good material, and to operate as represented, or may be returned within three months at the expense of the manufacturer for home transportation, and purchase money refunded. The purchaser being his own judge in each case. For further particulars address the subscribers. Liberal deduction to dealers. Local agents wanted to sell and put the above in operation, &c. Catalogues, giving full descriptions, furnished on application. EMERY & Co.
369, 371 and 373 Broadway, Albany, N. Y.
May, 1853—1t.

## Standard Pears.

PARSONS & CO., Flushing, near New York, offer for sale a large assortment of Pear trees upon Pear stock, of various sizes, including the finest varieties.

Their general Catalogue of Fruit and Ornamental Trees, Roses, &c. forwarded on application by mail. [4-2t]

**AGRCULTURAL IMPLEMENT MANUFACTORY,**
CORNER OF CAROLINE & THIRD STREET,
*BUFFALO, N. Y.*

**Pitts' Patent Separator—Improved Double Pinion Horse Power—Pitts' Corn & Cob Mills, &c.**

I HEREBY give notice that since the extension of the patent right on my Machine for Threshing and Cleaning Grain, I have removed to Buffalo, N. Y., where I have permantly located, and erected a large establishment for the future manufacture of the above Machines.

The Separator has been enlarged, improved, and rendered more permanent and durable in all its parts, while the Horse Power for strength, ease, durability and cheapness of repair is not surpassed by any in the United States. This Power is warranted to stand the full strength of eight horses—also to give as much effective or useful power when driven by one or two horses as any other Horse Power, whether constructed on the endless chain or lever principle. It was put on trial at the great exhibition of Horse Powers and Threshing Machines at Geneva, July last, 1852, where it received the New York State Agricultural Society's First Premium "for the best Horse Power for general purposes." The Separator, at the same trial, also received the Society's First Premium.

My Machines will thresh and clean from three to five hundred bushels of wheat per day, and other grain in proportion.

Two hundred of the above Machines are for sale at the Agricultural Works of the subscriber in this city, all warranted to be a better article than can be purchased at any other shop, and if they do not prove on trial to be so, I will take them off the hands of the purchasers at the price they may pay me for them.

I further notify all persons who are purchasing Horse Powers and Separators to be used in California or Oregon, that I will hold them accountable for any infringmants of the rights secured to me by letters patent in the above Machines, as I am manufacturing a Horse Power and Separator expressly designed for that section.

All orders for the above Machines hereafter addressed to JOHN A. PITTS, Buffalo, N. Y., will receive prompt attention. JOHN A. PITTS.
May, 1853—tf. Buffalo, N. Y.

**Imported Horse, "Consternation."**

THIS thoroughbred horse has been so often exhibited at the Fairs of the New York State Agricultural Society, and always without a rival, that it is unnecessary either to describe or praise him. Six or seven of his colts, of various ages, were shown with him at Utica last fall. Two of them received first premiums, and all of them were greatly admired. Many of them, now four and five years old, are owned in Oneida county. Any person may be convinced of their great superiority by inquiring of almost any farmer or horseman in the towns of Rome, Lee, or Western. His colts and fillies are already in demand for breeding. Several have been sold during the past winter, at handsome prices, to go out of the State.

His pedigree will be found complete in Derby & Miller's edition of Youatt, and is confirmed in every particular by breeder's certificates and copies of the English Racing Calendar, and English Stud Book, now in possession of the subscriber.

He will stand the coming season at the farm of the subscriber, two miles west of Syracuse and adjoining the town of Geddes.

Terms.—$10 for the season, and $15 to insure; the money to be paid in advance in all cases. When a mare is insured and left at the farm of the subscriber, or regularly returned to the horse until the groom is satisfied she is in foal, a receipt will be given promising to refund the money if the mare was not got in foal. Pasturage furnished at three shillings per week. Mares to be at the risk of owners in all respects. J. B. BURNETT.
[4-3t] Syracuse, N. Y.

D. S. MANLEY & BROTHER,
**BUFFALO NURSERY,**
**Buffalo, N. Y.**

HAVING purchased this well established Nursery of its original proprietor, Col. B. Hodge, we take pleasure in offering for sale an unusually fine assortment of

*FRUIT AND ORNAMENTAL TREES, SHRUBS AND PLANTS.*

Our Fruit Department is supplied with fine healthy trees on their own stocks, of all the desirable varieties now in cultivation, together with Cherries and Pears dwarfed on superior stocks.

The Ornamental Department includes all the best varieties of Evergreen and Deciduous trees.

*Roses.*—One of the finest collections in this country, comprising all that are new and rare.

*Dahlias.*—An unrivalled selection of Dahlias, which has been procured at great cost.

*Peonias.*—We call particular attention to our stock of Peonias, both herbaceous and tree varieties.

The stock of *Shrubs* is unusually extensive and was collected by the late proprietor with peculiar care.

Of Currants, Gooseberries, Raspberries, Grapes, and Strawberries, we have vigorous plants of the best varieties.

It will please us to furnish all applicants with our Catalogue.

**Evergreen Trees and Shrubs.**

The following Evergreens can be supplied by the quantity, at low prices:

Norway Spruce, from 6 inches to 2 feet.
American White Spruce, 2 to 3 feet.
Balsam Fir, 2 to 4 feet.
Austrian Pine, 1 to 3 feet.
Scotch Fir, 1 to 3 feet.
Red Cedar, 1½ to 2 feet.
American Arbor Vitæ, 1 to 2 feet.
Chinese Arbor Vitæ, 2 to 3 feet.
Deodar Cedar, 1 to 1½ feet.
Chili Pine, (Auracaria imbricata,) 12 to 18 inches.
Japan Cedar, (Cryptomeria Japonica,) 1 to 5 feet.
Lofty or Bhotan Pine, (Pinus excelsa,) 1 foot.
Himalayan Spruce, (Abies morinda,) 6 to 12 inches.

And many other rare species and varieties, forming one of the most complete assortments of Conifers in the United States. ELLWANGER & BARRY,
Feb. 1, 1853. Mt. Hope Nurseries, Rochester, N. Y.

**North River Ag. Warehouse and Seed Store.**

*53 CORTLAND ST., NEW YORK.*

GEORGE H. BARR & Co. invite the attention of Farmers, Planters, and others, to their large and varied assortment of Agricultural Implements, Seeds, Manures, &c., &c., all of which will be furnished at the lowest prices. Their assortment includes

PLOWS—All the improved kinds by the most approved makers.

HORSE POWERS—Of all kinds and sizes, with and without Threshers, &c.

CORN SHELLERS—All the approved kinds, and some of recent introduction.

STRAW CUTTERS—Of all sizes, and kinds, for hand and horse power.

CORN AND COB CRUSHERS—Of all kinds and sizes.

FANNING MILLS, CULTIVATORS, HARROWS, CHURNS of all the approved kinds.

RAKES, HOES, FORKS, and a general assortment of Horticultural and Garden tools.

**REMOVAL!**

HALLOCK'S AGRICULTURAL WAREHOUSE has been removed from No. 50 State street, to

**No. 24 Exchange St., Rochester,**

in the Store formerly occupied by J. E. CHENEY as a Stove Store. The new store is well supplied with Implements, Seeds, &c., comprising a larger and more complete assortment than heretofore. Former customers and farmers generally are invited to call at the new establisment and examine for themselves. E. D. HALLOCK,
April, 1853. 24 Exchange St., Rochester, N. Y.

**Prouty and Mear's Plows.**

A large assortment of these celebrated Plows can be found at the North River Agricultural Warehouse and Seed Store, 53 Cortland St., New York. GEO. H. BARR & CO.

## THORBURN'S SEED STORE.

THE Subscribers, wholesale and retail dealers in VEGETABLE, FLOWER, FIELD, FRUIT and TREE Seeds, offer, all of last year's growth, the largest and most complete assortment to be found in the United States, all pure and of unsurpassed qualities, derived from first sources in Europe or raised expressly for them in this country.

MARKET GARDENERS, and others requiring large quantities of Seeds for their own planting, may rely on obtaining Beets, Cabbages, Carrots, Broccoli, Cauliflower, Onions, Early and Late Peas, Beans, Radishes, and other leading articles, raised from the same unrivalled stocks, which have given such general satisfaction heretofore in all parts of the Union.

AGRICULTURISTS are offered White French and Yellow German Sugar Beet, Long Red and Yellow Globe Mangel Wurtzel, Purple Top and Skirving's Improved Ruta Baga, all at 50 cents per pound. Long Orange, Altringham and White Field Carrots, $1 per pound; with all other varieties of Agricultural seeds, Clovers, Grasses, Vetches, &c., at corresponding fair prices, and of qualities to be depended on.

RETAILERS and COUNTRY MERCHANTS supplied on the most favorable terms.

CATALOGUES furnished to post-paid applicants.

FLOWER SEEDS can be forwarded expeditiously by mail at trifling cost.

Particular attention given to the careful packing of seeds for long voyages, and the smallest order by mail promptly attended to. J. M. THORBURN & CO.

15 John street, New York.

☞ JUST PUBLISHED—Thorburn's annual catalogue of Native and Exotic Tree, Shrub, &c. Seeds.

April, 1853—2t.

### Hallock's Hand Seed Drill.

THIS Drill is adapted to sowing carrot, turnip, beet, onion, and other small seeds in drills, with perfect regularity, and without regard to their weight or shape. The seeds are forced out by a circular brush, which revolves against a perforated tin plate inserted in the bottom of the hopper. A series of these plates accompany each drill, with holes of different sizes for regulating the quantity and kinds sown. It is a light, compact, and durable machine, and not liable to get out of order. They can be forwarded to any part of the country by railroad or stage. Remittances by mail at my risk. All orders (which should give full directions for forwarding,) promptly attended to. Price, $5.

Address E. D. HALLOCK,

April, 1853. Rochester, N. Y.

## Patent Mammoth Premium Corn-Stalk, Hay, and Straw Cutters & Grinders.

CAPABLE of preparing 100 bushels of Corn-stalks, or One Ton of Hay or Straw, per hour, and reducing the largest Corn-stalks to the consistency of Cut Straw, avoiding the necessity of steaming or soaking, and saving 80 per cent. over the common way of feeding fodder. Horses and Cattle will do as well on fodder prepared this way, as on the best hay. The First Premiums have been awarded at every exhibition where they have been exhibited for competition. It can be worked by hand or power, without additional cost. The inventor will forfeit $50, after an impartial trial, when this Machine is used in preparing good fodder, if it does not prove to save 80 per cent. over the common way of feeding fodder, and it may be fed in the same condition as the machine leaves it, without meal or soaking. Cows fed on fodder produce sweeter butter. Over 900 of these Machines have been sold. Price—$35.

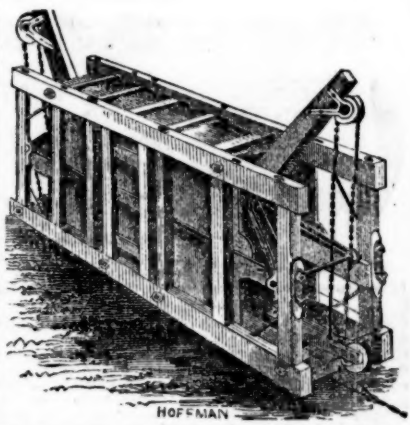
☞ State and County Rights for sale.

**Gilbert's Excelsior Thresher and Cleaner,**

Accomplishing more, with the same power, than any other Machine. It can be driven with two horses.

Price—$200 and upwards, according to size, Horse Power included. Apply post paid to J. G. GILBERT,

[2-tf] 216 Pearl st, New York.




## H. L. Emery's Newly Invented Double, Toggle-Jointed, Horizontal, Progressive Lever Hay and Cotton Press.

PROBABLY no one thing has been more wanted, and less improvements made upon it of late years, than the Hay Press. Notwithstanding this was completed quite late the past season, a large number were made and put into successful operation. As seen in the cut it is closed up and about midway in process of compressing a bundle of Hay. When fully pressed home, the ends of the levers, which are seen at each end extending above the box, are brought down by the chains or ropes and shelves, until the levers themselves become horizontal with the floor. The Press is provided with two followers, both working from the ends towards the center and each other. The chains or ropes from the levers are connected together by passing one of them under the machine and both joining in a larger chain or rope—this larger one being connected with a capstan or blocks and ropes, as most convenient.

When the Press is driven home, the hay becomes pressed into a bundle standing on its end. The side doors are thrown open while the bands are passed round the bundle and secured, when the top doors are loosened and the bundle thrown out. For operation, the levers are raised, the followers drawn back, and the top doors opened from the center to each end by unbuttoning the middle cross bar, as seen in the cut. The opening on the top for receiving hay, is 2 feet wide and 8 feet long. The Press stands upon the floor or ground when in use, which makes it both convenient and capacious for filling and treading in the hay.

The whole Press measures 14 feet long, 2 ft. 10 in. wide, 4 ft. 10 in. high, outside measurement, and weighs, complete, from 1200 to 1500 lbs., and is capable of compressing 250 lbs. of Timothy Hay into 16 cubic feet, (being 2x2x4 ft.) at the rate of five bundles per hour, with two men and one horse, and heavier bales in proportion as to size and time required.

For transportation, the inside work is readily removed and boxed up, while the sides are packed together making solid cubic measurement of the whole thing.

Price complete, with chains and capstans, $135, and warranted to work as represented, to the satisfaction of the purchaser.

I will, in a future number, give a further notice in detail, with more cuts illustrating its several parts detached.

For further particulars address H. L. EMERY,

April, 1853. Albany, N. Y.

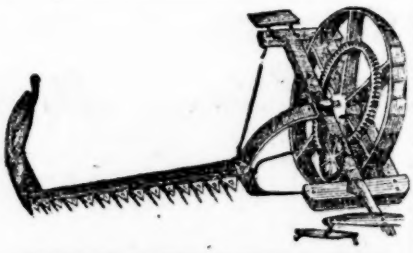
## Premium Dahlias.

THE subscribers offer for sale this Autumn and the ensuing Spring, 10,000 Dahlia Roots, which have proved to be the choicest collection in the States and Canadas. [See records of the Fairs for the last four years.]

Persons commencing the Nursery business, and Amateurs, will find it to their advantage to give us a call, or make enquiries before purchasing elsewhere.

C. J. RYAN & CO.,

Rochester and Charlotte Plank Road Nurseries, Rochester, N. Y. [11-tf]



## KETCHUM'S PATENT MOWING MACHINE.

**Howard & Co., Proprietors & Manufacturers,**

*BUFFALO, N. Y.*

**THIS** justly celebrated machine has been steadily advancing in public favor, for its simplicity durability and efficiency—and it has settled the question beyond a doubt that grass can be cut by Horse Power; for during last season, five hundred of these machines were sold by us, and universally approved of by those who used them. Farmers were daily in the habit of cutting from ten to fifteen acres per day, with ordinary driving. It leaves the grass uniformly spread over the ground, requiring no turning to cure properly. In the Report of the Committee who served at the Trial of Mowing and Reaping Machines, held at Geneva in July last, they show fully and conclusively *this to have been the only machine in the field which cut its allotted two acres without clogging or any interruption*, doing its work admirably, and in far better manner than can be done by manual labor with a scythe. Our knives are not *sickle-edged*, consequently do not clog at every little hummock or bog they may happen to come in contact with. The Committee also show that there is an actual saving, by the use of this machine over hand labor, of $18 per day. We have only to refer those who want a perfect Mowing Machine to examine the Report and judge for themselves. This machine took the first premium as a mower, at the trial in Springfield, Ohio; a gold medal at the Fair of the American Institute, N. Y., also, first premium at the Provincial Fair at Toronto, C. W.

They are so very compact that one of them can be easily carried in an ordinary one-horse wagon, and so very simple that it requires no machinist to put it together, as there are but two bolts (beside the pole bolts) to be secured to have the machine ready for use, and which does not require over ten minutes time. They weigh about 750 lbs., and can be worked by any boy who can manage a team. We have made all the improvements suggested by experience in the way of strength, durability, &c., and sell them under the following warranty: That said machines are capable of cutting and spreading, with one span of horses and driver, from ten to fifteen acres per day, of *any kind of grass*, heavy or light, wet or dry, and do it as well as is done with a scythe by the best of mowers. They are equally capable of cutting barley, buckwheat, millet, &c. It is much less trouble to keep the knives in order than a scythe, as they have frequently been known to cut from ten to fifteen acres without sharpening, which can be done on an ordinary grind-stone in a few minutes. We can give any reference required, for the full performance of our machine, as above stated.

Orders should be sent in early, as we shall manufacture but a limited number. The price of our machine, including two sets of knives, extra knife blades, wrench, &c., is $110, cash, in Buffalo, the machine to be delivered on board of boat or cars free of charge.

Office and shop, corner of Chicago street and Hamburgh canal, near Eastern R. R. Depot, Buffalo.

March, 1853—tf. HOWARD & CO.

☞ J. RAPALJE & Co., are sole agents for the sale of the above machine in Rochester, which they will sell at manufacturers' prices.

## Manures,

**FERTILIZERS** of all kinds for sale by the subscribers.

Improved Superphosphate of Lime, Superphosphate of Lime—both the above made after the recipe of Prof. Mapes.

Peruvian Guano, Sulphuric Acid, Bone-dust, Potash Sparlings, Poudrette, Plaster of Paris, &c. &c.

GEO. H. BARR & CO.

53 Cortland St., New York.

## EMERY'S MOWER AND REAPER.

**THE** subscriber, not only having made himself practically acquainted with the construction and working of all the successful machines of this class, but having made and successfully introduced several valuable improvements in some classes of agricultural machinery, which have already gained favorable and world-wide reputation and adoption, flatters himself that he has also made an improvement in the construction of a Mower and Reaper of equal if not greater merit, than any of his former improvements.

It will suffice to say, that while this is the most compact, light, simple, cheap, durable, easy working machine, it is at the same time the most perfectly adjustable, and easily convertible into a Mower or Reaper, working as perfectly in either form as those of the best other kinds, whether simple or combined. The frame itself is so suspended upon the axis of the main wheel, as to be elevated and depressed at pleasure, so as to secure a horizontal or inclined (forward or back) position of the whole machine, at whatever elevation used, thus always having the cutting works in proper position.

In reaping, a reel is used, and the raker stands erect, face forward and directly behind the platform, with a support about him; the movable platform being on the same plane with the frame-work at the side of the discharge, and at the same time about two inches above the stubble. With the above introduction, and the diagrams to follow, together with those in this number of the Genesee Farmer, the public will have before them several machines from which to make a selection before purchasing for the coming season, and at the same time know what they are purchasing, much better than to be guided alone by impracticably written and published reports of committees of public trials, and be enabled to purchase only such articles as have their practical as well as theoretical merits plainly pointed out, or if not so pointed, to purchase only of responsible manufacturers, who are willing to back their machines by their reputation and capital.

For further particulars concerning the Reaper and Mower above described, address

HORACE L. EMERY, Albany, N. Y.

March, 1853.

☞ E. D. HALLOCK, No. 50 State street, Rochester, is agent for Western New York, and will have one put up in running order in his store. Those in his vicinity wishing to obtain a Reaper and Mower, are requested to call and examine the merits of the above machine before purchasing elsewhere.

## Superphosphate of Lime.

**THIS** extraordinary fertilizer, the effects of which as a manure and general assistant to soils, has proved itself invaluable to the agriculturist. This most important constituent of the soil is being daily removed and taken up in solution by plants, and unless such substance be returned fertility must decrease and the land become poor, its promoting and pushing power of growth giving strength to young plants while in their tender state and fortifying them for early maturity, excels over all other *manures*. It is some ten years since its introduction in England, where, from its pronounced *magic effects*, its introducer received a patent right from the English government.

The progressive high repute of its properties has caused the demand to increase each year. At the present time some thousand *tons* are annually sold to the farmers.

The subscriber has had much experience in the peculiar manufacture of this manure in Europe, which leads him to suppose that he stands unequalled by any competitor. Some considerable quantity was sold last season and tried on various crops, the beneficial results of which has caused orders for forward delivery in the coming spring to a large extent. Being in a powder, it is easy in handling, may be drilled in with seed, sown, &c.

To prevent deception being practiced, all packages will henceforward be branded with the maker's name. For sale at the following Agricultural warehouses:

LONGETT & GRIFFING,
25 Cliff St., New York,
R. L. ALLEN, (late A. B. ALLEN & Co.)
189 Water St., New York,

where purchasers may be sure of obtaining a chemically pure and genuine article.

☞ Enquire for C. B. DEBUC's No. 1 Superphosphate of Lime. [3-3t]

**Northern N. Y. Live Stock Insurance Company**, Plattsburgh, N. Y. For terms, please apply to agents of the Company.

# PRINCE & CO.'S
# IMPROVED PATENT MELODEON.

GEO. A. PRINCE & Co., MANUFACTURERS, 200 MAIN ST., BUFFALO, N. Y.

**WHOLESALE DEPOT, - - - - - - - 87 FULTON STREET, NEW YORK.**

For the convenience of MUSIC DEALERS in all parts of the United States, we have made an arrangement with the following firms, who will supply the TRADE at our regular Factory prices:

**GEO. P. REED & CO., 17 Tremont Row, Boston, Mass. COLBURN & FIELD, 154 Main St., Cincinnati, O. BALMER & WEBER, 58 Fourth St., St. Louis, Mo.**

**General Agent for New York City,**

**WM. HALL & SON, - - No. 239 Broadway, opposite the Park.**

The subscribers take this method of calling the attention of the public to a new Musical Instrument, as yet but little known to the musical world, viz: Prince and Co.'s Improved Patent Melodeon.

It is now about five years since these instruments were first offered for sale, and during that time the increased demand for them has been unparalleled. One hundred and fifty workmen are constantly employed in the manufacture and finishing from 75 to 80 instruments per week, and as yet they have not been able to supply the demands promptly.

For the benefit of those residing at a distance, and consequently unable to inspect the Melodeon before purchasing, we will endeavor to give a short description of the instrument.

The cases are made of Rosewood, and are as handsomely finished as any piano forte. The keyboard is precisely the same as the piano or organ, and the tone (which is very beautiful) closely resembles that of the Flute Stop of the Organ—the notes speak the instant the keys are touched, and will admit of the performance of as rapid passages as the Piano. The Pedal on the left is intended for a swell, and with which the most beautiful effects can be produced. The Pedal on the right supplies the wind, and works so easily that a child can manage it without any exertion. The Bellows, (which is something entirely new, and for which a Patent was granted in December, 1846,) is a reversed or exhaustion Bellows, and it is this, in a measure, which produces the peculiar tone. The instrument can be immediately made portable without detaching any part, the bellows receding into the body of the instrument, and the legs folding under and springing to their places, leaves the whole in a compact form. Each instrument has a packing case secured by lock and key.

The volume of tone is equal to that of a small organ, and by means of the swell may be increased or diminished at the pleasure of the performer; it is sufficiently loud for small churches, and is well calculated for a parlor instrument. Hundreds have examined them, and all have been loud in their praise; and the best evidence of their merit is their rapid sale. But it is a new instrument—a new invention, and is yet but little known in the musical world, and it is for this reason that we call to it the attention of all lovers of Music, believing that there are thousands who would lose no time in securing one, were they aware of the existance of such an instrument, and the low price at which it could be obtained.

The following letter from Lowell Mason, Boston, to G. P. Reed, we are permitted to use:

Mr. GEO. P. REED, No. 17 Tremont Row, Boston, Mass.

*Dear Sir*—At your request I have examined one of the Melodeons manufactured by Messrs, Geo. A. Prince & Co., of Buffalo. I think the instrument in all respects equal, and in some respects superior, to any others of similar kind which I have seen, and in particular with respect to quality of tone and promptness of touch, or action of the reeds, by which quick passages may be performed with certain and distinct articulation of tones. An instrument of this kind is the best substitute for an Organ in Church Music with which I am acquainted. LOWELL MASON.

Boston, Mass., Sept. 26, 1849.

**Five Octave—Portable. Price, $75.**

**PRICES.**

| | |
|---|---|
| FOUR OCTAVE MELODEON, extending from C to C, | $45 00 |
| FOUR AND A HALF OCTAVE MELODEON, extending from C to F, | 65 00 |
| FIVE OCTAVE MELODEON, extending from F to F, | 75 00 |
| LARGE FIVE OCTAVE MELODEON—Piano style, | 100 00 |
| LARGE FIVE OCTAVE MELODEON—Piano style with two sets of reeds, tuned in octaves, | 150 00 |

☞ Just published, "PRINCE'S COMPLETE INSTRUCTOR FOR THE IMPROVED MELODEON; to which is added favorite Airs, Voluntaries, and Chants, arranged expressly for this Instrument. Price 75 Cents.

**CAUTION.**—In consequence of the great success which has attended the introduction of Prince & Co.'s Melodeons, numerous imitators have sprung up in different parts of the country—offering instruments under the same name, and in outward appearance resembling them. We would therefore caution the public to be on their guard, and examine those made by Prince & Co. before purchasing. Many improvements applied *are exclusively our own*, and being the original manufacturers, our experience has enabled us to produce Instruments which a discerning public have unanimously pronounced superior to any thing of the kind hitherto manufactured. Many of the most eminent Musicians of the cities of New York and Boston have voluntarily given testimonials as to the high character of our Instruments, which can be seen on application.

*All orders from a distance will be promptly attended to, and a written guaranty of their durability will be given if required.*

**GEO. A. PRINCE & CO.**

**THE HORTICULTURIST,**

**And Journal of Rural Art and Rural Taste.**

THIS is a Monthly Journal of 48 pages, beautifully printed on the finest paper, and elegantly illustrated, making one of the most beautiful Monthly Magazines published in the world. It is devoted to Horticulture, in its various departments, Rural Architecture, and to all that concerns Rural Life, and to the cultivation of Rural Taste.

It is edited by P. BARRY, so long known and esteemed as the Horticultural Editor of the *Genesee Farmer*, and published at the low price of $2 per year. A discount of 20 per cent. allowed to agents. JAMES VICK, Jr.,
Publisher, Rochester, N. Y.

**New York Ag. Warehouse and Seed Store,**

OCCUPYING THREE LARGE WARE HOUSES.—The subscriber has constantly on hand the most extensive assortment of the best and latest improved Agricultural and Horticultural Implements, and Field and Garden Seeds, ever offered for sale in the United States, embracing every Implement, Machine, or Seed desirable for the planter, farmer, or gardener. Also, Guano, Bone Dust, Poudrette, Plaster of Paris, and Superphosphate of Lime.

A Machine shop is also attached to my establishment, where I employ upwards of one hundred hands, who are all exclusively engaged in making a portion of the Agricultural Implements sold at the ware house.

R. L. ALLEN.
May, 1853.—tf. 189 & 191 Water St., New York.

**Entrepot Agricultural et Magasin de Graines de New York.**

NOUS avons constamment en main l'assortiment le plus complet des meilleures et des plus recentes inventions pour tout ce qui concerne l'agriculture et l'horticulture, ainsi que les graines de champs et de jardin, qui ait jamais ete mis en vente dans les Etats-Unis; comprenant tous les outils, machines, semences, etc., utilis aux planteurs, fermiers ou jardiniers. Nous avons aussi en veute du guano, de la poudre d'os, de la poudrette, du platre de Paris, et du superphosphate de chaux. Des eleves en bestiaux et moutons, des meilleures races de Durham et autres.

R. L. ALLEN, ci-devant A. B. ALLEN et CIE,
Mai, 1853—tf. 189 et 191 Water-street, N. Y.

**AGRICULTURAL.**

EVERY FARMER SHOULD OWN

*Cole's American Vetrinarian:* A Treatise on the Diseases of Domestic Animals. By S. W. COLE. In one volume, 18 mo., with plates, sheep. Price,.... 50
The best work of the kind ever issued from the American Press. 34,000 copies have been published.

*Cole's American Fruit Book.* By S. W. COLE, author of the American Vetrinarian. In one volume, 18 mo., numerous plates, full sheep. Price,..... 50
This is undoubtedly one of the most valuable works on the subject ever published in this country. 18,000 copies published.

*Schenck's Kitchen Gardener's Text Book:* Containing full and practical directions for the formation and management of the Kitchen Garden. By PETER A. SCHENCK. In one volume, 18 mo., numerous plates, sheep, Price,..... 50

*Breck's Book of Flowers.* A thorough work, with full directions for the cultivation of a Flower Garden, Shrubs, and Plants, for ornamental purposes. By JOSEPH BRECK, Seedsman and Florist. In one volume, 12 mo., cloth. Price,..... 75

*Treatise on the Construction, Heating, and Ventilation of Hot Houses.* By R. B. LEUCHARS, Scotch Garden Architect. 8 vo., with a large number of Engravings, Plans, Drawings, Elevations, &c., &c., cloth. Price,..... 1 00
The only work on this subject ever published in America. It is highly recommended by Prof. Silliman, and other scientific gentlemen.

*The American Foal Breeder.* Price,..... 25

Published by JOHN P. JEWETT & CO.,
Nos. 17 and 19 Cornhill, Boston.
☞ For sale by all booksellers. [5-4t]


**CONTENTS OF THIS NUMBER.**


Transformation of Vegetables into Milk and Flesh,.... 187
Superphosphate of Lime,..... 189
Spring Work,..... 140
Green Crops for Barn use in Summer,..... 142
Farming near Washington,..... 143
British and American Agriculture,..... 144
Does Pasturage Impoverish the Soil? Wool Growing in the West,..... 147
Extermination of the Wire Worm and Canada Thistle; Maximum Ruta Bagas; Wire Worms; Experiments with Guano,..... 148
Small Farms and Thorough Cultivation; Time to Cut Timber,..... 149
Corn for Fodder; Fall Plowing,..... 150
Small vs. Large Horses; Broom Corn; Buggy Peas; Sowing Oats among Corn for Cut Worms,..... 151
Carriage House and Stable,..... 152
African Wheat,..... 153
EDITORS' TABLE.—Notices, &c,..... 157
Inquiries and Answers,..... 158

HORTICULTURAL DEPARTMENT.

Management of Orchards,..... 154
A Practical Treatise on the Culture and Treatment of the Grape Vine,..... 155
The Cold Grapery,..... 156
Answers to Correspondents,..... 160

ILLUSTRATIONS.

Carriage House and Stable,..... 152
Ground Plan of do.,..... 152
African Wheat,..... 153



**Eggs of Chinese Fowls for Sale.**

I HAVE a fine collection of all the improved varieties of fowls, and will sell eggs the present season of the following varieties:

White Shanghae, Black Shanghae, and Red Shanghae, at $3 per dozen, nicely packed and forwarded as directed.

Also, Royal Cochin China and Brahma Pootra, at $4 per dozen. All fresh and fit for setting.

Address WM. VICK,
April, 1853. Rochester, N. Y.

*The Practical and Scientific Farmer's own Paper.*

**THE GENESEE FARMER,**

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE,

ILLUSTRATED WITH NUMEROUS ENGRAVINGS OF

**Farm Buildings, Domestic Animals, Implements, &c.**

**VOLUME XIV, FOR 1853.**

DANIEL LEE, JAMES VICK, Jr., & JOSEPH HARRIS, EDITORS.

P. BARRY, Conductor of Horticultural Department.

**Fifty Cents a Year, in Advance.**

Five Copies for $2—Eight Copies for $3, and any larger number at the same rate.

☞ All subscriptions to commence with the year, and the entire volume supplied to all subscribers.

☞ POST-MASTERS, FARMERS, and all friends of improvement, are respectfully solicited to obtain and forward subscriptions.

Subscription money, if properly enclosed, may be sent (post-paid or free) at the risk of the Publisher. Address to
**DANIEL LEE,**
November, 1852. *Rochester, N. Y.*


POSTAGE LAW.—By the new Postage Law, which took effect on the 1st of September last, the postage on the *Genesee Farmer* for one year is as follows,—when paid quarterly in advance:

Anywhere in the State of New York,..3 cts,
Anywhere in the United States,.....6 cts.

STEREOTYPED BY J. W. BROWN, ROCHESTER, N. Y.